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MR. AND MRS. GOVERNOR BJÖRN ERIKSSON

REQUESTS THE PLEASURE OF THE COMPANY OF

Mr. M. Bodie

AT Luncheon given at Linköping Castle

ON Wednesday April 25 AT 13.00

R.S.V.P.
PHONE: +46 (0)13 19 63 01

MR. AND MRS. GOVERNOR BJÖRN ERIKSSON

REQUESTS THE PLEASURE OF THE COMPANY OF

Mr. L. Frieden

AT Luncheon given at Linköping Castle

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PHONE: +46 (0)13 19 63 01

Invitation

The City of Linköping has the pleasure to invite you to dinner

Wednesday the 25th of April 2001 at 20.00
at the Restaurant Kårallen
(in the University area of Linköping)
This Dinner is a part of the expert meeting
Towards a Barrier Free Europe for Citizens with Disabilities

Welcome

Eva Joelsson
Mayor

Invitation

Tuesday the 24th of April 2001 at 19.00
we have the pleasure to invite you to a reception
at our City and County Library

Welcome!

Björn Eriksson
Governor

Provincial Government
of Östergötland

Paul Håkansson
Chairman Executive board

County Council
of Östergötland

This Reception is a part of the expert meeting
Towards a Barrier Free Europe for Citizens with Disabilities

Harper's April 1986

WHAT DOES THE GOVERNMENT OWE THE POOR?

An American's distrust of welfare should come as no surprise. Public assistance threatens what is after all the central doctrine of capitalism: that the incentive to work is born of the burning desire to *have*, and then to have more. Why risk dulling the spur of poverty, and thereby dooming the supposed beneficiaries to perpetual dependence?

Critics of the Great Society voiced these concerns during the mid-1960s, but in the last three or four years much louder, more confident voices have raised them again. The new critics maintain that America's inner cities have become great wastelands of poverty, a poverty largely subsidized and thus encouraged by our own government. Far from "lifting Americans out of poverty," welfare has succeeded mainly in breaking up families, encouraging young girls to have babies out of wedlock, and generally denigrating the value of hard work. So why not dismantle it?

Charles Murray's *Losing Ground* is the most influential presentation of the radical view that government can best help the poor by leaving them to their own devices. Jesse Jackson is a longtime civil rights activist known for his eloquent and sympathetic advocacy of the interests of the poor. *Harper's* invited Murray and Jackson to discuss welfare, government, and the nature of American poverty.

The following conversation took place at the Harvard Club in New York City.

CHARLES MURRAY

is a senior research fellow at the Manhattan Institute for Policy Research. He is the author of Losing Ground: American Social Policy, 1950–1980, *which criticizes the effects of social programs on the poor. He was formerly chief scientist at the American Institutes for Research, where he evaluated government programs involving urban education, welfare services, child nutrition, day care, adolescent pregnancy, juvenile delinquency, and criminal justice.*

JESSE JACKSON

is president of the National Rainbow Coalition and co-pastor of the Fellowship Missionary Baptist Church in Chicago. From 1967 to 1971 he served as national director of the Southern Christian Leadership Conference's Operation Breadbasket. In 1971 he founded Operation PUSH, which promotes excellence in inner-city public schools and negotiates with major corporations to increase the amount of business they do with minority-owned companies. Jackson sought the Democratic presidential nomination in 1984.

CHARLES MURRAY: How can government help the poor? The problem is that, so far, we haven't been very good at it. During the late 1960s and early 1970s, we began a major effort to bring people out of poverty, to educate the uneducated, to employ the unemployable. We have to confront the fact that the effort to help the poor did not have the desired effect. In terms of education, crime, family stability, the lives of poor people have gotten worse since the 1960s, and we have to explain why.

During those years we, in effect, changed the rules of the game for poor people. Essentially we said, in a variety of ways: "It's not your fault. If you are not learning in school, it is because the educational system is biased; if you are committing crimes, it is because the environment is poor; if you have a baby that you can't care for, it's because your own upbringing was bad." Having absolved everybody of responsibility, we then said: "You can get along without holding a job. You can get along if you have a baby but have no husband and no income. You can survive without participating in society the way your parents had to." And lots of young people took the bait. So the question remains: What, if anything, does the government owe the poor?

JESSE JACKSON: I'm as unimpressed with boundless liberalism as I am with heartless conservatism. Creative thinking has to take place. But to begin to think creatively, we have to be realistic: about the role of government, for example.

We cannot be blindly anti-government. The government has made significant interventions in many, many areas for the common good. Without public schools, most Americans would not be educated. Without land-grant colleges, the United States would not have the number one agricultural system in the world. Without federal transit programs, we would not have an interstate highway system. Without subsidized hospitals, most Americans could not afford decent medical care. And the government has played a significant role in providing a base for many American industries. The defense industries, for example, may be considered private, part of the market, but many of them are almost wholly supported by government contracts.

Now, we consider spending the public's money toward these ends to be in our national interest. When we saw the devastation in Europe after World War II, we devised the Marshall Plan—a comprehensive, long-term program. Had the Marshall Plan been a five-year investment program—as the War on Poverty essentially was—Europe would have collapsed. But we determined that the redevelopment of Europe was in our national interest. That's an instance where a vigorous government investment made something positive happen.

But when we shift from the notion of subsidy as something that serves our national interest, to that of welfare, the attitudes suddenly shift from positive to negative. In this country there is a negative predisposition toward the poor. We must learn to see the *development* of people who are poor as in our national interest, as cost-efficient, as an investment that can bring an enormous return to every American. The government definitely has a big role to play.

MURRAY: I agree it has a role. There are some things government *can* do, and one of them is to ensure that a whole range of opportunities is available to everyone. For example, in my ideal world, whether a child lived in the inner city or in the suburbs, everything from preschool to graduate school would be available to him—free. In this ideal world, if someone really

looked for a job and just couldn't find one, perhaps because of a downturn in the economy, some minimal unemployment insurance would be in place to help him.

Opportunity should be assured, but attempts at achieving equal outcome abandoned. What would happen if you took away all other government-supported welfare, if the system were dismantled? Well, believe it or not, a lot of good things would begin to happen.

JACKSON: The notion of "opportunity" is more complicated than it sounds. For example, some people are poor *because* of government. When a nation is 51 percent female yet can't get an equal rights amendment passed; when many women still cannot borrow money with the same freedom men can, cannot pursue their ideas and aspirations in the marketplace because they are not equally protected—that amounts to government interference, too, but on the side of the status quo. Many blacks and Hispanics cannot borrow money from banks, on subjective grounds—because some bank official doesn't like their color, or because whole neighborhoods are redlined so that money will not be loaned to anyone living there. Government must be committed to the vigorous enforcement of equal protection under the law and other basic principles; without that enforcement, it is not a government handout that's the issue as much as it is the government's shoving people into a hole and not *letting* them out. When Legal Aid is cut, and the poor no longer have access to the courts, that's an example of government playing a role in *perpetuating* poverty.

MURRAY: If you try to rent an inexpensive apartment in my hometown of Newton, Iowa, even if you're white, you may very well not be able to rent that apartment, on "subjective grounds." I mean, you come to the door, and because of the way you act or the way you look or whatever, the landlord says to himself: "My apartment's going to get trashed." These subjective grounds often have a basis in fact. And it's real tough for people renting out apartments—and maybe even for banks—to operate in ways that enable them to make money if they aren't permitted to make these kinds of subjective judgments.

JACKSON: Dr. Murray, the farmer wearing his bib overalls who walks up to that apartment door and is rejected for the way he looks is not a victim of racial prejudgment. That man could put on a suit and get the apartment. Blacks can't change color. The idea is that bankers choose not to make loans to blacks *institutionally*.

Now, I'm not just throwing around a charge here. John H. Johnson, the president of Johnson Publishing Company, which publishes *Ebony*, is perhaps the most established black businessman in the country. Yet several banks turned down his loan application to build in downtown Chicago. Maybe the most established black businessman in the country was turned down for a loan simply because of the institutional racism of banks. And so we need laws enforced, we need the government to protect people who are black or Hispanic or Asian or Indian or female, from the bankers' ability to do that.

A lot of people, to this day, are simply locked out. Until 1967, there had never been more than a couple of black car dealerships, because the automobile industry's policy was not to allow a black to invest in a car dealership or to learn to run one in any neighborhood, black or white. So blacks now have fewer than 240 dealerships out of the 22,050 in this country. Blacks always had the ability, but they were locked out by race, even if they had the money. Operation PUSH confronted Ford as late as July 1982, when there were fewer than 40 black automobile dealerships out of 5,600. Ford finally agreed to grant thirty new black dealerships in one year, which they had previously claimed was impossible. Well, those thirty dealerships are still operating, employing an average of more than fifty people each, and those jobs represent the alternative to welfare and despair.

MURRAY: If you say that in 1960 blacks as a people were locked out, well, I have no problem with that. But that is no longer accurate. Let's talk about black youth unemployment. Are you saying that America's black youth are marching resolutely from door to door, interviewing for jobs, and that they are getting turned down because they're black? If so, then a jobs program ought to do wonders. CETA ought to have done wonders. But it didn't.

JACKSON: The private economy, by being so closed for so long, has pushed many people into the public economy. There's just no reason why, in a population of 30 million blacks, there are only two black beverage-bottling franchises. You can't explain it by lack of ambition or an unwillingness to take risks, because for the past twenty years blacks have been the top salesmen in that industry. A lot of people got locked into poverty because of the government's failure to enforce equal protection under the law. Until the Civil Rights Act of 1964 and Lyndon Johnson's executive order of 1965, beverage companies could get lucrative government contracts to operate on U.S. military bases around the world, even though they locked out a significant body of Americans.

MURRAY: I'm not in a position to argue with you about wholesalers and franchises. But I don't think we can assume that if blacks gain more access to entrepreneurial business positions—which I'm all in favor of—it will have a fundamental effect on poverty and the underclass.

JACKSON: If there is an artificial ceiling limiting the growth of the so-called talented 10 percent—I use the term advisedly—then it compounds the problem of the disinherited 90 percent. If where we live, our money won't "spend" because of redlining, which becomes a de facto law; if where we live, our money cannot buy a car franchise or a beer franchise or a soft-drink franchise—which are some of the great American ways out of poverty—then blacks are effectively locked out of the private economy. And so, just as the political grandfather clause locked blacks out of the political system, economic grandfather clauses have effectively locked blacks out of the economic system. Blacks today can take over a town politically, because its population is mostly black. But the economic territory—the entrepreneurial opportunities, beyond mom-and-pop businesses, which allow a people to develop a leadership class in the private economy, which in turn begins to lift others as it hires them and trains them—is still closed. Blacks who worked as salesmen and saleswomen for the first generation of black entrepreneurs now have franchises of their own, because they have access to the franchise head. But that has not happened historically.

MURRAY: Why is it that the Koreans and Vietnamese and all sorts of other people who come here with very few resources do well, including West Indian blacks? They come here, start businesses, and manage to earn a median income which rivals or surpasses that of whites. I'm not trying to say racism doesn't exist. I'm saying it doesn't explain nearly as much as it ought to.

JACKSON: Do not underestimate the impact of 250 years of legal slavery followed by a hundred years of legal segregation. The damage it did to the minds of the oppressor and the oppressed must not be played down. When I grew up in South Carolina, I could caddy but I couldn't play golf. That's why I can't play golf now; I could have been arrested for hitting a golf ball at the Greenville Country Club. I could shag balls, but I couldn't play tennis. I could shine shoes, but I couldn't sit on the stand and couldn't own a stand at the train station. I could wait tables, but I couldn't sit at them; and I could not borrow money to build a competing establishment.

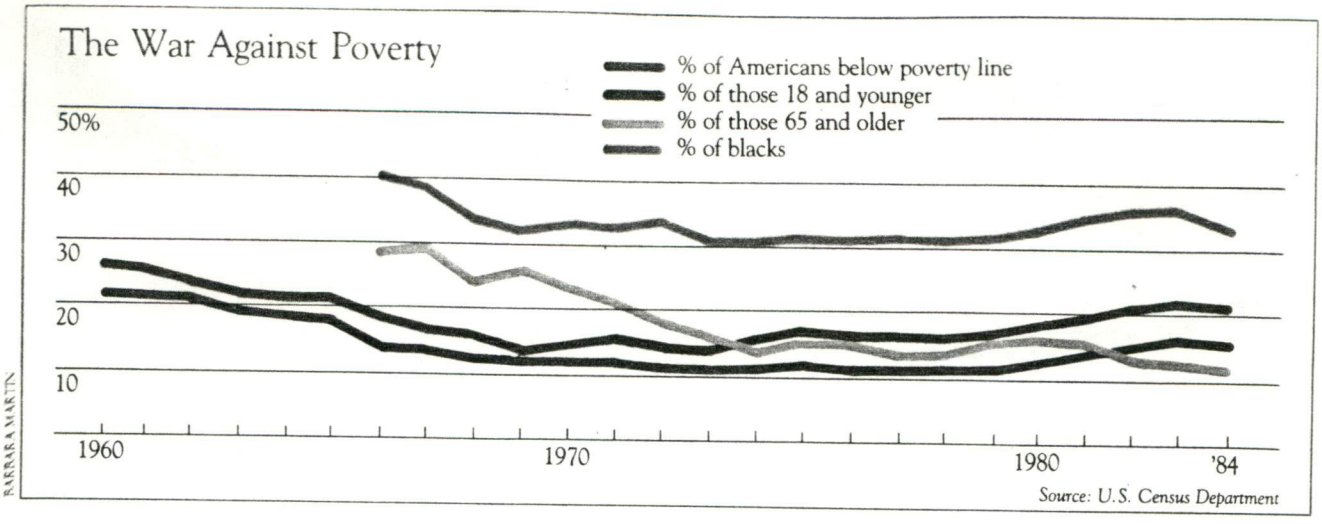
The other groups you mentioned have not known that level of degradation. The Cubans came to Miami as beneficiaries of a cold war between this country and Cuba; we used money and subsidies to induce them to come here, and those who came were in large measure from a class that had some history of business acumen. Many of the Vietnamese were beneficiaries of the same kind of cold war policy.

Now, shagging balls and not playing tennis, caddying and not playing golf, not voting and seeing others vote—all of this had the cumulative effect of lowering people's ambitions and limiting their horizons. Let me give an example. I saw a story in *USA Today* last summer headlined "More Blacks Graduating from High School, Fewer Going to College." A young lady from Chicago was quoted in the story, and I decided to meet with her and her mother. It turned out she had a B+ average, was a member of the National Honor Society—the whole business. I said to the girl, "Do you want to go to college?" She said she did. I said, "Well, have you taken the SAT tests?" She said she hadn't. "Why not?" "Well, the counselor told me that since I couldn't afford to go to college, that stuff was a waste of time." In other words, she was being programmed for failure, taught to be mediocre, programmed downward.

Once I discovered what was happening, I went on the radio and asked any high school student—black, white, brown—who had every college qualification except money to come to Operation PUSH. Seven hundred fifty young people came with their parents; we have placed 250 of them in colleges, including that young lady. But if that young lady hadn't gone to college, she would have been written off three or four years later: people would have said the family was subsidized, dependent; she didn't go to college; now she's pregnant; and the whole cycle begins again. She was programmed into lower ambition, programmed away from college. Yet many schools, especially the better ones like Harvard and Columbia, provide scholarship money. But so many students don't know this; it's a well-kept secret. Those who have, know; the circle remains essentially closed.

MURRAY: Getting that information out would serve as an *incentive*. I know how I'd spend money on educational programs. I'd put up a bunch of posters saying that anybody who gets such-and-such a score on the SATs will get a free ride through college. I'm willing to bet that I'd get more results from my program than the government would get by trying directly to improve the schools.

JACKSON: There's a role for that kind of motivation. There's also a role for increasing opportunity. Often it's not lack of ability or ambition



that locks people out, but lack of information.

MURRAY: I'm worried, because I'm starting to agree with you too much!

JACKSON: Just give me time, you'll be all right.

MURRAY: Oh, I think we'll find some things to disagree on. I come from an all-white town. I went back to visit this Christmas, and I said to myself, "I wonder what poverty is like here in Newton, Iowa." So I got in touch with the human services people and spent some time riding around with a caseworker. And as I listened to this caseworker describe what her problems were, I realized that if I closed my eyes, I could have been listening to a caseworker in the South Bronx. The problems were indistinguishable from what are usually considered "black problems."

JACKSON: Yes, we must whiten the face of poverty. It's an *American* problem, not a black problem. But the face of poverty in this country is portrayed as a black face, and that reinforces certain attitudes. I mean, John Kennedy holds up a sick black baby in his arms and people say, "Gee, he's a nice guy." He holds up a sick white baby in West Virginia and people say, "We've got to *do* something about this."

Of the 34 million people living in poverty in America, 23 million are white. The poor are mostly white and female and young. Most poor people work every day. They're not on welfare; they're changing beds in hospitals and hotels and mopping floors and driving cabs and raising other people's children. And there is no basis for taking a few people who cheat the system as examples, and using them to smear millions of people who by and large work very hard.

MURRAY: The welfare queen is not the problem. And the dynamics of dependency operate pretty much the same for both blacks and whites. For example, I did some checking on what the out-of-wedlock birthrate is among poor whites. Guess what? Middle-class blacks don't have much of a problem with out-of-wedlock births, just as middle-class whites don't; but poor blacks *and* poor whites alike have a big problem with it.

Now, when I visit a school in inner-city Washington, I see a couple of different kinds of kids. A lot of kids are sent out of their houses every morning by their moms and dads, who tell them, "Get that education. Study hard. Do what the teacher says." And these youngsters go off to school and study hard, do exactly what the teacher says, and still graduate a couple of years behind grade level—not because they're stupid, but because of what has happened to the school systems during the past twenty years. A great deal of energy and attention has been spent catering to the kind of kid who, for whatever reason, makes it real hard for the first set of kids to learn.

So I think we need to reintroduce a notion which has a disreputable recent history in America: the notion of class. A good part of our problem can be characterized as one of "lower-class behavior," which is distinct from the behavior of poor people.

JACKSON: In other words, the Watergate burglars, though white, male, and rich, were engaging in "lower-class behavior."

MURRAY: No, but if you talk about the danger posed by the increase in crime, it so happens that it is not the rich white folks who are suffering.

JACKSON: Back up now, back up. You introduced a phenomenon there, Dr. Murray, about "lower-class behavior." I suppose that means low morals.

MURRAY: You added that.

JACKSON: Well, I *guessed* that's what it means. What does "lower-class behavior" mean?

MURRAY: The syndrome was identified long ago, although the term is more recent. People in the nineteenth and early twentieth centuries would simply talk about "trash," for example, and later there was the concept of the "undeserving poor." The sociologist who did the Elmstown study certainly recognized the syndrome, as did Edward Banfield. It is characterized by chronic unemployment due to people working for a while and then dropping out, unstable family life, and so on.

JACKSON: But you know, Dr. Murray, you made a distinction here on this "lower-class behavior," and I was trying to get a definition of it, but I did not get it. I'm sorry, I haven't read all those books you mentiond. But I suppose it means *immoral* behavior.

MURRAY: I'm not using words like "moral" and "immoral."

JACKSON: Well, I guess it means violence against people, unprovoked violence—lower-class behavior. Sex without love, making unwanted babies—lower-class behavior. Taking what belongs to other people—lower-class behavior. Filling your nose full of cocaine, driving drunk—lower-class behavior. That's not lower-class behavior, Dr. Murray, that's immoral.

It seems to me that whether it is stealing in the suites or stealing in the streets, whether it is happening in ghetto, barrio, reservation, or suburb, we should condemn lower-class behavior. Cain killing Abel, brother killing brother, is lower-class behavior because it's low morals, it's unethical, it's not right. Whether they're welfarized or subsidized, people should not engage in lower-class behavior. Is it more moral for a business executive to sniff cocaine than a welfare recipient?

MURRAY: If you are saying that rich white people can be lousy, I agree. But my point is that if we continue to pretend that all poor people are victims, if we do not once again recognize in social policy the distinctions that have been recognized all along on the street, we will continue to victimize those poor people who most deserve our respect and our help.

Parents, black or white, who are working at lousy jobs but who are *working*, paying the rent, teaching their kids how to behave—yes, those people are behaving differently, and certainly in a more praiseworthy way, than parents who fail to do those things. Poor people fall into very different classes, distinguished by differences in work behavior, such as chronic unemployment whether there are jobs or not. And there are differences in child rearing. Working-class people pay a lot of attention to how their children are doing; they talk to them, ask how they're doing in school. But there are children who come to school at the age of five and do not know, for example, the words for the colors; nobody's talked to them, they've been utterly neglected. Finally, when there is divorce among the working class the man takes continued responsibility for supporting the children. Lower-class behavior, on the other hand, is characterized by serial monogamy or promiscuity and a failure of the man to take responsibility for his children.

JACKSON: Dr. Murray, the lady who lived across the street from us while I was growing up ran what they called a "bootleg house." She was a woman of high character: she was a seamstress, and all her children graduated from college. But on the weekend people came over to her house to drink and gamble, and so Mrs. X was considered an outcast. Now, another lady named Mrs. Y, who lived about three blocks from us, owned a liquor store; because she was white she could get a liquor license. Mrs. Y was an entrepreneur, Mrs. X was a moral outcast. But something told me early in the game that the only difference between Mrs. X and Mrs. Y was a license.

Men and women would come over to Mrs. X's house sometimes and have sex down in the basement: promiscuity, also a sign of lower-class behavior, and another reason why people looked down on her. Well, I began working at the hotel in town; I was paid to carry in the booze for the men who would meet women there, often other people's wives, sometimes even their friends' wives. They'd each leave at a different time and by a different door to maintain their respectability, but I knew where they lived because I used to cut their grass and rake their leaves. This is distinctly lower-class behavior—sleeping with other people's wives.

MURRAY: No, engaging in sexual behavior, even promiscuity, does not make you lower class. What makes you lower class is having kids you can't or don't take care of.

JACKSON: Now, Dr. Murray, are you saying that a lawyer who has sex with his partner's wife and uses a prophylactic is engaging in behavior that's higher class than that of someone who does the same thing but does not have the sense or ability to use a prophylactic?

MURRAY: Look, I'm not against sex. I'm not even

necessarily against sex outside of marriage.

JACKSON: Now, don't get too swift on me here. The act of going to bed with another man's wife is adultery.

MURRAY: Fine.

JACKSON: It ain't fine. It's *immoral.* It's lower-class behavior, and whether it takes place in the White House, statehouse, courthouse, outhouse, your house, my house, that behavior is unethical.

MURRAY: But that has nothing to do with what I'm saying.

JACKSON: It shows a certain attitude: If you do something and it's subsidized, it's all right. If others do it and it's welfarized, it's not so good.

I was in inner-city Washington several months ago, talking to a gym full of high school kids. I challenged those who had taken drugs to come down front. About 300 came down. Next day the *Washington Post* published three pictures and the headline "Jackson does phenomenal thing—kids admit drug usage." Editorial: "It's a great thing that Jackson did, but you know he has a special way with black kids." Next day I went to a school in Maryland—in one of the richest counties in America, about 97 percent white, single-family dwellings, upper middle class, and all that. The principal said to me, "Well, you can make your pitch, but of course it won't work here." So I made my pitch. I said, "Taking drugs is morally wrong, except in controlled medical situations; it's morally wrong and ungodly." Six hundred students were present. I said, "Those who have tried drugs, come forward." About 200 came forward. This was a junior high school; these kids were thirteen, fourteen years old. The principal was in a daze. Now *that's* lower-class behavior and upper-class economic status. Rich folks embezzle and poor folks steal; rich folks prevaricate and poor folks lie. But I think a lie is a lie is a lie.

MURRAY: If we agree that lying is lying and stealing is stealing, that doesn't help the little old lady who is trying to get from her apartment to the grocery store without getting her Social Security check ripped off. If we take the attitude that white-collar crime is just as bad as street crime, so let's not go after the street criminals when we let the embezzlers get away, the problem is that we ignore that little old lady, who is not in much immediate danger from embezzlers. Poor people, first of all, need safety. We'll take care of the white-collar criminals as best as we can, but first I want to make it safe in the neighborhoods. And if that requires putting a whole bunch of people behind bars, let's do it.

JACKSON: We should remember that four years at a state university in New York costs less than $25,000; four years at Attica costs $104,000. I am more inclined to take these young kids and lock them up in dormitories, give them years of mind expansion and trade development. It costs too much to leave them around for years without education, hope, or training.

The present welfare system should be replaced

The Millionaire and the Dishwasher

Fear of the mob is a superstitious fear. It is based on the idea that there is some mysterious, fundamental difference between rich and poor, as though they were two different races, like negroes and white men. But in reality there is no such difference. The mass of the rich and the poor are differentiated by their incomes and nothing else, and the average millionaire is only the average dishwasher dressed in a new suit. Change places, and handy dandy, which is the justice, which is the thief? Everyone who has mixed on equal terms with the poor knows this quite well. But the trouble is that intelligent, cultivated people, the very people who might be expected to have liberal opinions, never do mix with the poor. For what do the majority of educated people know about poverty? . . . From this ignorance a superstitious fear of the mob results quite naturally. The educated man pictures a horde of submen, wanting only a day's liberty to loot his house, burn his books, and set him to work minding a machine or sweeping out a lavatory. "Anything," he thinks, "any injustice, sooner than let that mob loose." He does not see that since there is no difference between the mass of rich and poor, there is no question of setting the mob loose. The mob is in fact loose now, and—in the shape of rich men—is using its power to set up enormous treadmills of boredom, such as "smart" hotels.

—*from* Down and Out in Paris and London *(1933), by George Orwell*

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with a human development system. As presently constructed, the welfare system has built-in snares: there's no earn-incentive, no learn-incentive to get out. Assume you are locked into this box: a girl with a tenth-grade education and a baby. If she's making, say, $200 a month on welfare, why not provide some positive incentives? If she went back to school and got her junior college degree, she should get $240, $250. Why? Because that's making her employable, moving her closer to the market, where she can earn her own money. She can go back to junior college and study computer science, or learn cosmetology or business. The way it is now in most states, if she went out and found a job and made $200, they would take away $200 from welfare. So why earn the $200? Maybe if she earns $200 she should keep at least $100.

The point is that incentives to earn and learn must be built into the system. As it is now, if the young man who fathered the child doesn't have a job but comes back to live with the mother, she loses her check. So there's an incentive to keep the father away. And one of the few ways she can get any extra money is by engaging in an activity that may get her an extra child.

Now this young girl—white, black, Hispanic, Asian, Indian—is the victim of a system that is not oriented toward human development. We must take away the punishment and threats and disincentives and move toward a sense of optimism and increasing options.

MURRAY: One part of me endorses what you're saying in principle. But when I think of all the practical difficulties I get depressed. Most of all, it is extremely difficult to make much progress with youngsters who already have certain behavior patterns. If we go to a poor part of New York City, white or black, and pick a hundred kids who really have problems—drugs, illegitimate kids, the rest of it—and I say: "Here's a blank check; hire the best people, use the latest technologies, do whatever you can." At the end of three or four or even five years, if you start with seventeen- or eighteen-year-olds, *maybe* you will be able to point to ten or fifteen out of that hundred who show any major signs of getting somewhere.

Human beings aren't plastic. We don't know how to deal with certain kinds of problems after a certain age. The only route we have is prevention. So if you're hearing me say we're going to have to write off a generation, you can certainly back me into that corner.

JACKSON: Dr. Murray, I have seen these same kids, who you say can't do anything, volunteer for the Army, and in six to eight months they are building bridges, assuming responsibility. Why? Because it's an effective program that teaches, inspires, and sets clear goals.

So many young people step into sex and have babies because of ignorance, lack of discipline, and the like. If there was sex education before the fact, as well as the teaching of moral values, then there'd be less debate about abortion after the fact. Today, there is this whole group of people who *love* the fetus; they march across America to save a fetus and march right back to cut off aid for a baby.

Aid to women for prenatal care has a lot of value. The Head Start program saved and salvaged a whole generation. The drive to wipe out malnutrition by Senators McGovern and Hollings in the food stamp program actually worked; it brought about balanced diets where there had been none. We should drop programs that aren't working, not those that are.

MURRAY: It is beginning to percolate into the consciousness of policymakers that we just don't know how to affect large numbers of people who are leading blighted lives. The only way we can deal with this is by prevention.

JACKSON: I agree that there are ways to change this situation without just paying another top-heavy layer of overseers and administrators who'd be sending paperwork back to Albany. I would take 500 young people and say, "How many of you would like this neighborhood to be cleaner?" Most hands would go up. "How many of you would like to have windows in your buildings in the wintertime?" Hands would go up. "How many of you would like to make $12 to $20 an hour?" Many hands. "Then here's what you must do if you want to make $12 to $20 an hour. We'll teach you how to be a mason. You can lay bricks and not throw them. You can learn how to be a glazier, how to be a plasterer. And at the end of this time we'll get you certified in a trade union. You will then have the skill to build where you live; if the floor's buckling in your gymnasium, you can fix it."

And so these young men and women would be empowered and enfranchised: they would much rather make $20 an hour than be on welfare. Just to do things *for* them while keeping them economically disenfranchised is no systemic change at all. And, Dr. Murray, people who can lay bricks and carpet and cut glass have no intention of going back on welfare.

MURRAY: I should point out that in my ideal world, by God, any black youngster who wants to can become a glazier, any poor youngster can learn a trade. And, Reverend Jackson, in my ideal world I would also clone *you*, because I've heard you speak to these kids.

JACKSON: But why do you think black kids everywhere are playing basketball so well? I submit to you that they're playing basketball and football and baseball so well and in such great numbers because there is a clear and obvious reward; there's a carrot. Do this and you'll be in the paper, on the radio, on television. And you'll get a college scholarship. And if you're real good, you'll get a professional contract. So these same kids that you say are unreachable and unteachable will gravitate to a carrot if they can see it. There must be a way out. And right now we must come up with ways out.

MURRAY: Yes, education and training opportunity—the carrots—are absolutely central. But once you have those, you have to have a support system, and this is where we've got a real problem. For example, let's say a youngster graduates from high school without many skills. He gets into a good job-training program, one that will really teach him a skill if he buckles down. But the youngster has never learned good work habits, so he flunks out of the training program. For that youngster to come out of high school ready to take advantage of a training program, there must be changes in the school he came from.

Now, what about the youngster who is offered an opportunity but who is below average in intelligence? I mean, half the country is below average in intelligence, and in industriousness.

JACKSON: Does that apply all the way through the government?

MURRAY: Let's just say this youngster is no great shakes, not much of anything. How is this youngster going to have a life that lets him look back when he's sixty and say, "Well, I did O.K., given what I had. At least I always supported myself and raised my kids and so on." The only way that eighteen-year-old kid is ever going to get to that position is by taking jobs that aren't much fun and don't pay much money. In order to reach the point where he feels good about supporting himself and his family, he's got to survive those years of eighteen, nineteen, twenty, when kids want to do things which make a whole lot of sense when you're that age but turn out to have been real stupid by the time you're thirty. Here is where, after you've provided the opportunities, which I am for in abundance, you've still got to worry.

JACKSON: But Dr. Murray, democracy must first guarantee opportunity. It doesn't guarantee success. Now, why do you think these ghetto and barrio youngsters are doing so well in athletics?

MURRAY: Because they see people just like them, who came out of those same streets, making a whole lot of money doing it.

JACKSON: So successful role models are a great motivator.

MURRAY: They make a huge difference. Now, how do we get the Jesse Jacksons of the world to be more visible role models?

JACKSON: Well, I've been working on that for a few years. But the point is that where the rules are clear, even though the work is hard, the locked-out tend to achieve. Ain't no low-class and high-class touchdowns. But there are no black baseball managers and no black professional football coaches. Why? Because in those areas where the decisions are made behind closed doors and where the rules are not so clear, those who are locked out don't do well.

That is basically true in the private economy: the more subjective the rules, the less the penetration. When people go behind closed doors to, say, determine who the dean of the medical school will be, eight people who are doctors, all of them graduated from the same school, tend to come up with someone from the same lineage. Why are there so many blacks in government? Because if you do well on the test, you can get in, and the rules of seniority are established.

MURRAY: In 1983, the New York City Police Department gave a sergeant's exam, and 10.6 percent of the white candidates passed but only 1.6 percent of the blacks. So it was decided that even though the rules were clear, some blacks who had failed the test would be promoted in order to fill a quota. Now, either you assume that the test measured nothing relevant to being a sergeant and that skill is randomly distributed, so it didn't make any difference that a whole bunch of blacks were arbitrarily promoted despite the fact that they didn't pass the test, or you assume that the test did in fact measure abilities that are important to advancement. If that's true, a few years down the road very few of the black sergeants will become lieutenants. This ensures, in an almost diabolically clever way, that no matter how able blacks become, they will continue to be segmented, and whites will always be looking at black co-workers who aren't quite as good at their jobs as the whites are. You build in an appearance of inferiority where none need exist.

Now, your son went to St. Albans and my daughters go to National Cathedral. These are among the finest schools in Washington. Your son, when he applies for a job, doesn't need or want any special consideration. The fact that he's black is irrelevant.

JACKSON: You're making dangerous comparisons here, Doctor, which tend to inflame weak minds. My son is not a good example because, like his father, his achievements are above average. The fact is that all of America, in some sense, must be educated about its past and must face the corrective surgery that is needed.

When there's moral leadership from the White House and from the academy, people tend to adjust. When Lyndon Johnson said—with the moral authority of a converted Texan—that to make a great society we must make adjustments, people took the Voting Rights Act and affirmative action and said, "Let's go."

There are a lot of positive examples around the country where integrated schools have worked, where busing has worked, where affirmative action has worked, when that spirit of moral leadership was present. The same school where the National Guard had to take two blacks to school in 1961—the University of Georgia—is where Herschel Walker won the Heisman Trophy. Later he was able to marry a white woman without protest in rural Georgia. Why? Because people had been taught that it was all right.

MURRAY: You've got the cart before the horse. By the mid-1960s, white folks finally, after far too long, had had their consciousnesses raised. They said to themselves, "We've done wrong. We have violated a principle that's one of the taproots of America; we haven't given people a fair shot just because their skin's a different color." A chord was struck that triggered a strong desire not only to stop doing the bad things but also to help people make up for lost ground.

That additional response was, from the very beginning, sort of pushing it. The principle that had actually been violated was that of the fair shot; but the black civil rights movement isn't feeding off that important nutrient anymore. It's gone beyond that. Today, when white folks aren't making public pronouncements, I hear far too many of them saying things which are pretty damned racist. I see a convergence of the old

The Projects of Poverty

The projects in Harlem are hated. They are hated almost as much as policemen, and this is saying a great deal. And they are hated for the same reason: both reveal, unbearably, the real attitude of the white world, no matter how many liberal speeches are made, no matter how many lofty editorials are written, no matter how many civil-rights commissions are set up.

The projects are hideous, of course, there being a law, apparently respected throughout the world, that popular housing shall be as cheerless as a prison. They are lumped all over Harlem, colorless, bleak, high, and revolting. The wide windows look out on Harlem's invincible and indescribable squalor: the Park Avenue railroad tracks, around which, about forty years ago, the present dark community began; the unrehabilitated houses, bowed down, it would seem, under the great weight of frustration and bitterness they contain; the dark, the ominous schoolhouses from which the child may emerge maimed, blinded, hooked, or enraged for life; and the churches, churches, block upon block of churches, niched in the walls like cannon in the walls of a fortress. . . .

Harlem got its first private project, Riverton—which is now, naturally, a slum—about twelve years ago because at that time Negroes were not allowed to live in Stuyvesant Town. Harlem watched Riverton go up, therefore, in the most violent bitterness of spirit, and hated it long before the builders arrived. They began hating it at about the time people began moving out of their condemned houses to make room for this additional proof of how thoroughly the white world despised them. And they had scarcely moved in, naturally, before they began smashing windows, defacing walls, urinating in the elevators, and fornicating in the playgrounds. Liberals, both white and black, were appalled at the spectacle. I was appalled by the liberal innocence—or cynicism, which comes out in practice as much the same thing. Other people were delighted to be able to point to proof positive that nothing could be done to better the lot of the colored people. They were, and are, right in one respect: that nothing can be done as long as they are treated like colored people. The people in Harlem know they are living there because white people do not think they are good enough to live anywhere else. No amount of "improvement" can sweeten this fact. Whatever money is now being earmarked to improve this or any other ghetto might as well be burnt. A ghetto can be improved in one way only: out of existence.

—*from* Nobody Knows My Name,
by James Baldwin

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racism, which is still out there, with a new racism, from people who are saying, "Well, gee, it's been twenty years now. You'd think they'd be catching up by now."

JACKSON: They're getting strong signals from the highest pulpit in the nation. When the White House and the Justice Department close their doors to the Afro-American leadership; when the Congressional Black Caucus cannot meet with the President of the United States; when the government closes its doors to the NAACP, the SCLC, the Urban League, Operation PUSH; when the White House will not meet with the Conference of Black Mayors; when those who work in the vineyards daily will not even engage in the dialogue you and I have engaged in today—that's reprehensible behavior. It sends out signals that hurt people. When leadership is present, people behave differently.

MURRAY: In addition to spending a lot of time talking to white people in general, I also spend a lot of time talking to conservatives. And I happen to know that their passion for a colorblind society is not just rhetoric.

JACKSON: Are you a consultant for an optometrist? Because the only people who would benefit from people going colorblind would be optometrists.

Nobody wants to be that way, man. We don't *need* to be colorblind; we need to affirm the beauty of colors and the diversity of people. I do not have to see you as some color other than what you are to affirm your person.

MURRAY: I mean that the ideal of giving everybody a fair shot—of not saying to anyone, "Because you're black I'm going to refuse to give you a chance"—is something which a lot of conservatives feel more passionately about than a lot of your putative friends do.

JACKSON: But if two people are in a one-mile race and one starts off with a half-mile head start and one starts off at point zero—O.K., now let's take the chains off, every man for himself—well, such a race is not just. We are starting out behind. I mean, of the top 600 television executives, fewer than fifteen are black.

MURRAY: I had a talk with somebody from one of the networks a few weeks ago, as a matter of fact. He said to me: "Well, we figured we ought to have a black producer, so we went out and hired the best one we could find. But he really isn't very good, so we do most of his work for him." Now, insofar as people aren't allowed to be TV producers because they're black, that's bad. But insofar as white people go around saying, "We had to get our black TV producer, so we brought in someone who can't make it on his own," they are not doing blacks a service.

JACKSON: Man, for most of my life I have seen black people train white people to be their boss. Incompetent whites have stood on the shoulders of blacks for a long time. Do you know how impressed I am when a white rock singer who is selling millions of records explains how he got his inspiration from a black artist, who can't even afford to come to the white man's concert? A few months ago *Time* said in an article that Gary Hart was the only Democrat who has run a coast-to-coast campaign. I was on the cover of *Time* twice during the 1984 campaign. But Hart's the only one. Isn't that a strange phenomenon? It's like Ralph Ellison's invisible man: they look at you but they don't see you.

By and large, the black people the White House sees are those one or two exceptions who did something great. They take a Hispanic kid or a black person and try to impose that model on the nation. I could take the position, "Well, if I can make it from a poor community in South Carolina, explain to me how a white person can be in poverty," and it would be absurd. But I could argue it and get lots of applause.

MURRAY: I'm willing to grant that we shouldn't make so much of the exception if you grant me that just because folks may be against certain kinds of programs, it doesn't mean that they're mean-spirited, or don't care about problems.

JACKSON: If we can avoid the demagogy and turn debate into dialogue and stereotypes into creative thinking, we can begin to develop ideas. I mean, I agree that this welfare system hurts people fundamentally. Many of the things that come from this Administration, like the enterprise zone idea, have a lot of validity. If an enterprise zone creates a green line, instead of a red line, where if you live in that area you get certain incentives—that idea has merit. It may mean that a young man or a young woman teaching school will want to move to a district because of a tax incentive, or perhaps a doctor or a lawyer will want to move his office there. You establish an incentive for people to locate there, through the tax system or otherwise; you begin to shift capital, and the people who live there have first option on the new jobs. But the Administration has never really discussed this idea with those who would have to communicate with the masses about it.

So that idea has merit. Together we could make sense of such an idea. I'm anxious to open up the door of social policy, and I'm impressed with this opportunity today. ■

Basic Eligibility Criteria for Benefits

SSDI - Title 2
1956

1. Paid Social Security Taxes for
   - 20 of the last 40 quarters or in
   - 1/2 their working years since age 21 and

2. Medically disabled and

3. Not working/earning less than $500 gross wages per month

SSI - Title 16
1972

1. Poor - little income or resources and

2. Medically disabled and

3. Not working/earning less than $500 gross wages per month

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

Work Incentive Provisions for SSA Beneficiaries

Title 2 Social Security Disability Insurance	Benefit to the Individual
Trial Work Period (TWP) $200 per month	Monthly SSDI check + Medicare for nine months
Substantial Gainful Activity (SGA) $500 per month	
Impairment Related Work Expenses (IRWE)	Monthly SSDI check and Medicare continues
Extended Period of Eligibility (EPE)	SSDI check only when earnings less than $500 per month for 36 months and Medicare continues
Extended Medicare Coverage	Medicare continues 3 months beyond EPE
Medicare Buy-In	Option to Purchase Medicare Coverage, indefinitely

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

SSA Work Incentives for Persons Who Work

Trial Work Period

1. When the client begins employment and earns in excess of $200 per month they must notify the local SSA district office. A self-employed client with net earnings over $200 per month or 15 hours of work activity per month must also notify their local SSA district office.

2. The trial work period ends after the ninth month client performs work in excess of $200 or their disability ceases - whichever comes first.

3. The nine months of trial work do not need to be consecutive.

4. An individual is not automatically entitled to nine full months of trial work.

5. After trial work period ends, a decision of Substantial Gainful Activity (SGA) must be made by the local SSA district office.

6. Earnings are verified by the local SSA district office with the employer.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

SSA Work Incentives for Persons Who Work

Substantial Gainful Activity (SGA) Test

1. Applies after the client completes their trial work period.

2. Their gross earnings equal $500 per month or more.

3. If the client is self-employed, SGA is met when one of the following applies:

   - Performs a significant service and receives substantial income or
   - Work activity is fully comparable to unimpaired person doing the same activity or
   - Work activity clearly is worth more than $500 per month.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

SSA Work Incentives for Persons Who Work

Impairment Related Work Expenses (IRWE)

1. An IRWE can reduce earnings below the SGA level thereby enabling the individual to receive their SSDI check and to have continued use of Medicare.

    - Applies if client, because of physical or mental impairments, requires assistance in order to work.
    - The client must pay the cost of such assistance.
    - The payments must be within "reasonable limits".
    - The payments must be made in cash or checks, <u>not</u> in kind.

2. The client must apply for Impairment Related Work Expense at their local SSA district office.

    - The client must present evidence of the cost of each item.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

SSA Work Incentives for Persons Who Work

Extended Period of Eligibility (EPE)

1. It allows a SSDI client to receive their SSDI check for any month their earnings are below SGA and to do so for thirty-six months after their trial work period ends.

2. The disability must continue.

3. Persons receive only one EPE.

4. The client must demonstrate to their local SSA district office earnings below SGA.

5. If earnings are still below SGA at the end of EPE, a new determination of disability must be established before benefits can be resumed.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

SSA Work Incentives for Persons Who Work

Extended Medicare Coverage

1. Applies to SSDI beneficiaries only.

2. An individual must complete the nine months of trial work and then their extended period of eligibility to qualify for Extended Medicare Coverage.

3. The individual's termination from benefits must be due to Substantial Gainful Activity (SGA) and not from medical recovery.

4. Extended medicare coverage continues for 3 months beyond the 36th month of the Extended Period of Eligibility (EPE).

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 2 (SSDI)

SSA Work Incentives for Persons Who Work

Medicare Buy-in

1. Section 6012 of the Omnibus Budget Reconciliation Act of 1989 permits individuals to purchase Medicare benefits, indefinitely, even though all other SSDI benefits have terminated.

    - It applies to persons under age 65 who continue to be disabled.

    - The Individual's termination from benefits must be due to Substantial Gainful Activity and not from Medical Recovery.

2. The individual may pruchase Medicare coverage during specified enrollment periods.

3. Coverage is available after June 1990.

4. The premium is the same as Medicare's Hospital Insurance for uninsured individuals.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 16 (SSI)

Work Incentive Provisions for SSA Beneficiaries

Title 16 Supplimental Social Security Income	Benefit to the Individual
1619(a) Provision	Monthly check is reduced proportonately by income until the Federal Breakeven Point (FBP) is achieved, but Medicade continues
Impairment Related Work Expenses - IRWE	Monthly SSI check and Medicade continues
Plan for Achieving Self-Support - PASS	Monthly SSI check and Medicade continues
1619B Provision	Only Medicade continues to Tolerence Level (TL)

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 16 (SSI)

SSA Work Incentives for Persons Who Work

1619 (a)- Cash Benefits for SSI

1. As of July 1, 1987, the 1619(a) provision became a permanent part of the Social Security Act (re: P.L. 99 - 643).

2. The new law allows individuals to move easily between SSI regular benefits 1611 and SSI special 1619(a) provisions.

3. The eligibility requirements are

   - The individual must be under age 65 and disabled.
   - The individual must be eligible for SSI benefits according to all non-disability requirements, i.e., poor.
   - The individual must have been eligible for a cash payment, but not necessarily for the previous month to be eligible for 1619(a).
   - The individual must report at the end of each calander quarter the actual amounts of their earnings and work related expenses for each month in the quarter; and then estimate their earnings for each month of the next quarter.

4. The new law requires clients to be notified in writing by Social Security of their eligibility for 1619 provisions.

5. When the volume warrants it, the new law provides for the assignment of a 1619(a) provision specialist or Work Incentive Liason (WIL) in local SSA district offices.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

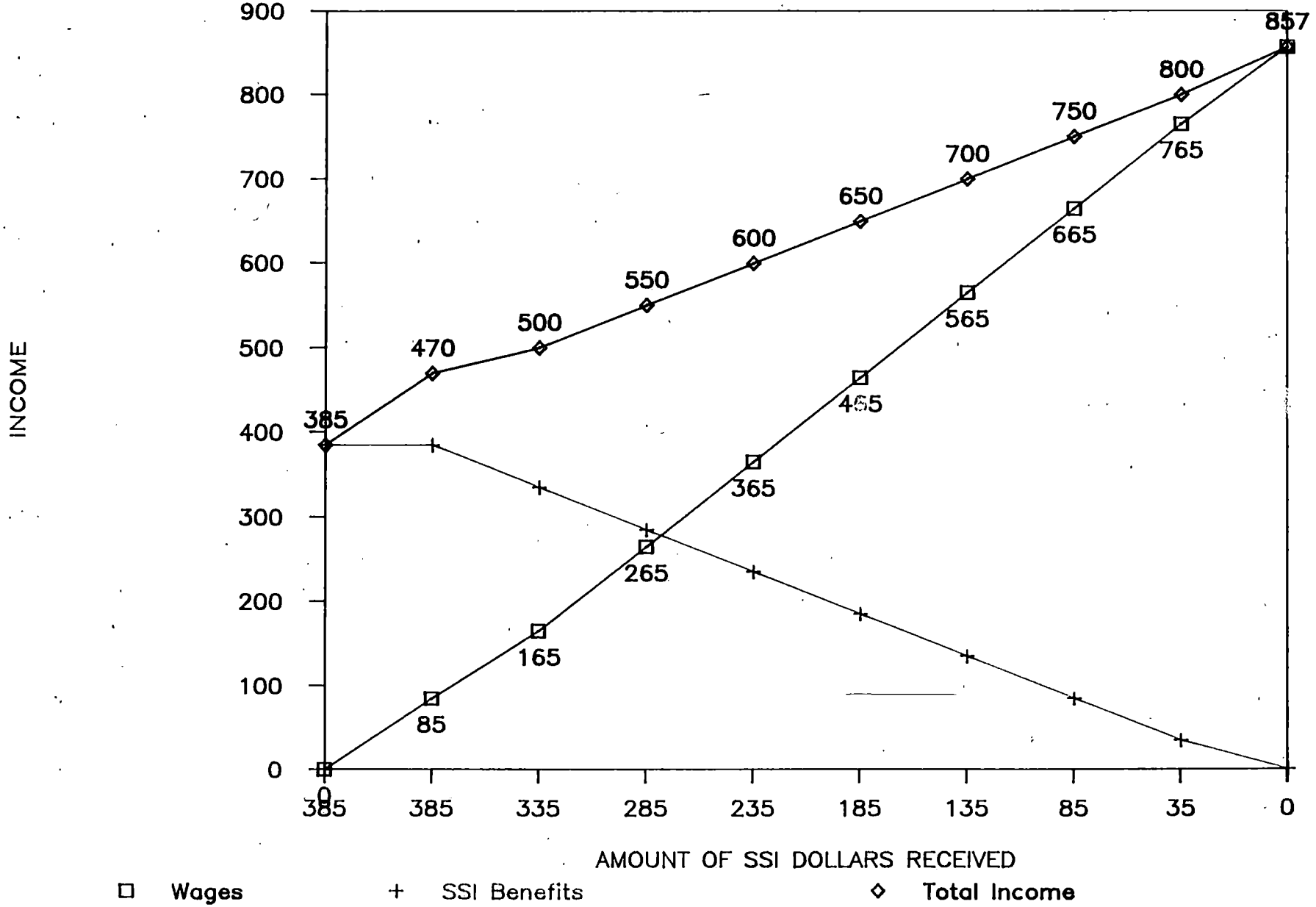
1619(a) - Cash Benefits for SSI (Continued)

6. The law requires the secretary of SSA to make a determination that the individual continues to have a disabling physical or mental impairment and to do so no later than 12 months after the individual receives 1619(a) benefits.

7. In order for the individual to receive a cash benefit, their countable income must not equal or exceed the Federal Breakeven Point (FBP) plus any state suppliment. This break even point, effective January 1990, for individuals who work and who receive SSI cash benefits is $857.

SSA WORK INCENTIVE

SECTION 1619(A)



Title 16 (SSI)

Work Incentive Provisions for SSA Beneficiaries

Blind Work Expenses (BWE)

1. These expenses are used to determine SSI eligibility and the payment amount if a blind person is:

   - under age 65 or
   - over 65 but received SSI payments for blindness for month before age 65.

2. Any income of a blind person used to meet any expenses "reasonable attributable" to earning the income is not counted for SSI eligibility.

3. The expenses do not need to relate directly to the individual's blindness. They only need to be work-related expenses and can even include federal, state, and local taxes and union dues.

4. These provisions are not available to persons with disabilities other than blindness.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

Title 16 (SSI)

SSA Work Incentives for Persons Who Work

Plan for Achieving Self-Support (PASS)

1. SSA district office personnel are to assist the individual in the development of a PASS including referral to an appropriate agency for help.

2. The PASS must be a specific plan devised for the individual enabling the person to attain a specific occupational objective and become self-supporting.

3. Necessary elements of PASS:

    - Must be in writing.

    - Must have a defined and feasible occupational objective.

    - Must have specifics regarding income/benefit set aside to obtain occupational objective.

    - Must have a specific and reasonable period of time within which the PASS will be fulfilled.

        - The initial period is no longer than 18 months; an additional period of 18 months may be granted; and a second extension of 12 additional months is possible.

    - A PASS must have a future date for completion.

4. The individual must perform in accordance with the provisions of the PASS as established and accepted by SSA.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

029012

Title 16 (SSI)

SSA Work Incentives for Persons Who Work

1619(b) - Medical Benefits Despite Ineligibility for Cash Benefits

1. As of July 1, 1987, the 1619(b) provision became a permanent part of the Social Security Act (re: P.L. 99 - 643).

2. The new law allows individuals to move easily between SSI regular benefits 1611 and special 1619(b) provisions.

3. The eligiblity requirements are

   - Individuals must be under age 65 and continue to be disabled but their earnings make them ineligible for cash payments (F.B.P.).

   - The individual must be eligible acording to all non-disability requirements, i.e. poor.

   - The termination of individual's eligibility for Medicade must be determined to be a hindrance to the individual continuing work.

   - The individual's earnings must be insufficient to replace SSI, Medicade, and publically funded personal or attendent care.

4. The new law requires clients to be notified in writing by Social Security of their eligibility for 1619(b) provisions.

5. The new law requires the Secretary of the SSA to make a determination that the individual continues to have a disabling physical or mental impairment and to do so no later than 12 months after the 1619(b) provisions begin.

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

1619(b) - Cash Benefits for SSI (continued)

6. The SSA district office claim's representative investigates the individuals earnings, which must be less than federal benefit rate plus state suppliment. The 1619(b) threshold level in Pennsylvania is

   - $14,723.60 yearly
   - $ 1226.97 monthly
   - $ 283.15 weekly (i.e., a 40 hour work week of $ 7.08 per hour).

SSA WORK INCENTIVE PROVISIONS CHECKLIST

CLIENT NAME_____ DATE_____

CLIENT SS#_____ VR COUNSELOR_____

THE ABOVE NAMED CLIENT IS REQUESTING CONSIDERATION FOR THE INCENTIVES CHECKED BELOW:

	INCENTIVE	**P.O.M.S. REFERENCE**
_____	Trial Work Pericd (TWP) *[SSDI]*	DI 13010.035ff
_____	Substantial Gainful Activity (SGA) *[SSDI]*	DI 10501.000ff
_____	Impairment Related Work Expense (IRWE) - *[SSDI/SSI]*	DI 10520.000ff
_____	Extended Period of Eligibility (EPE) *[SSDI]*	DI 13010.210
_____	Continued Payment to Individuals under a VR Plan (Section 301) *[SSDI/SSI]*	DI 13515.000ff
_____	Extended Medicare Provision *[SSDI]*	HI 00820.025
_____	Medicare Buy-In *[SSDI]*	To be published.
_____	Continued Benefits ... for Individuals Who Work Section 1619(a) - *[SSI]*	SI 02302.001ff
_____	Continued Benefits ... for Individuals Who Work Section 1619(b) - *[SSI]*	SI 02302.010ff
_____	Plans for Achieving Self Support (PASS) - *[SSI]*	SI 00870.001ff
_____	Blind Work Expenses (BWE) *[SSI]*	SI 00820.0535

Prepared by: Marlin G. Kester, SSA/VR State Coordinator
Pennsylvania OVR

KONSERT & KONGRESS
Linköping

LOKALER FÖR

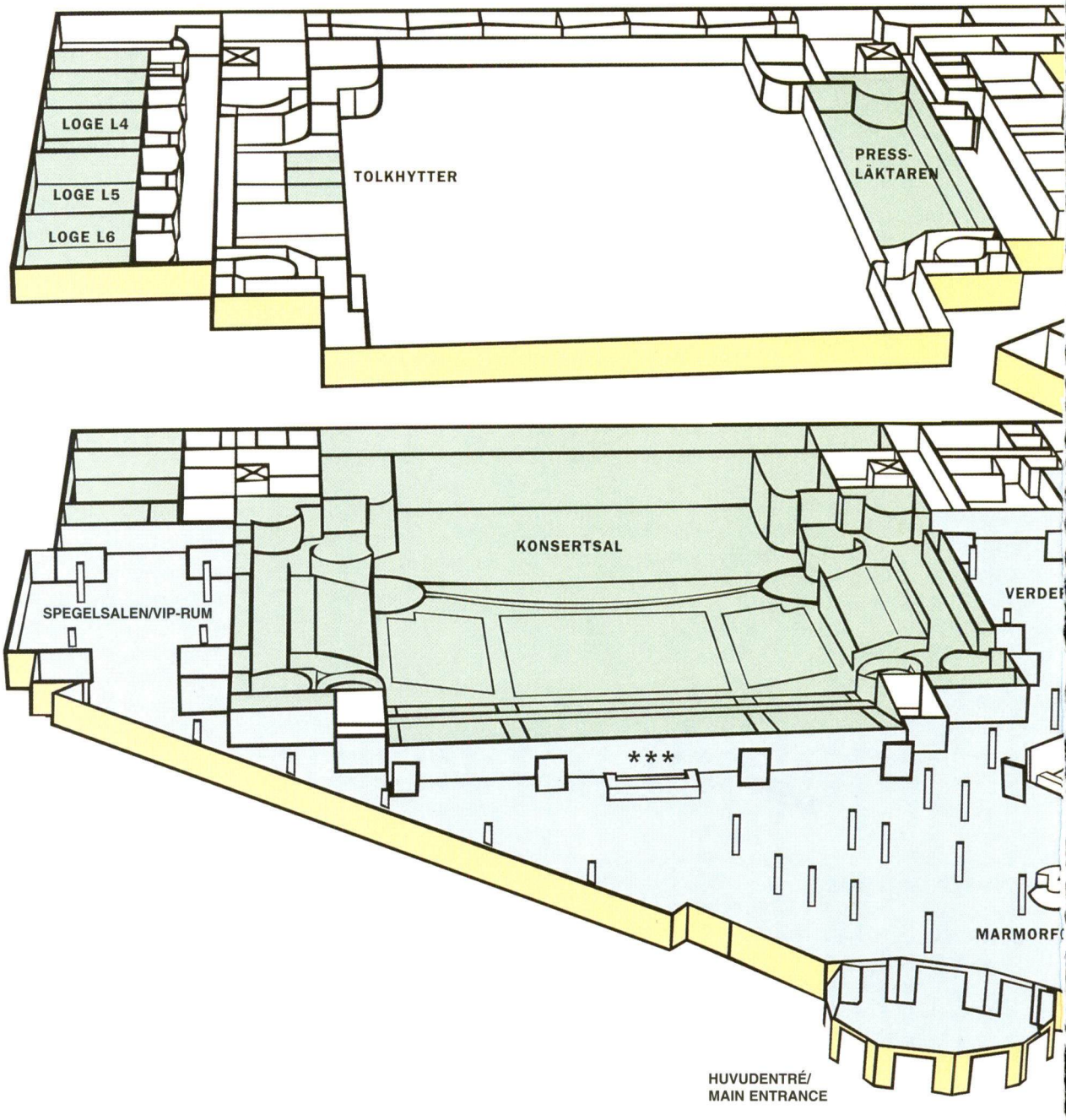
kongress
konferens
arrangemang

Facilities for congress, conference and events

PLANSKISS

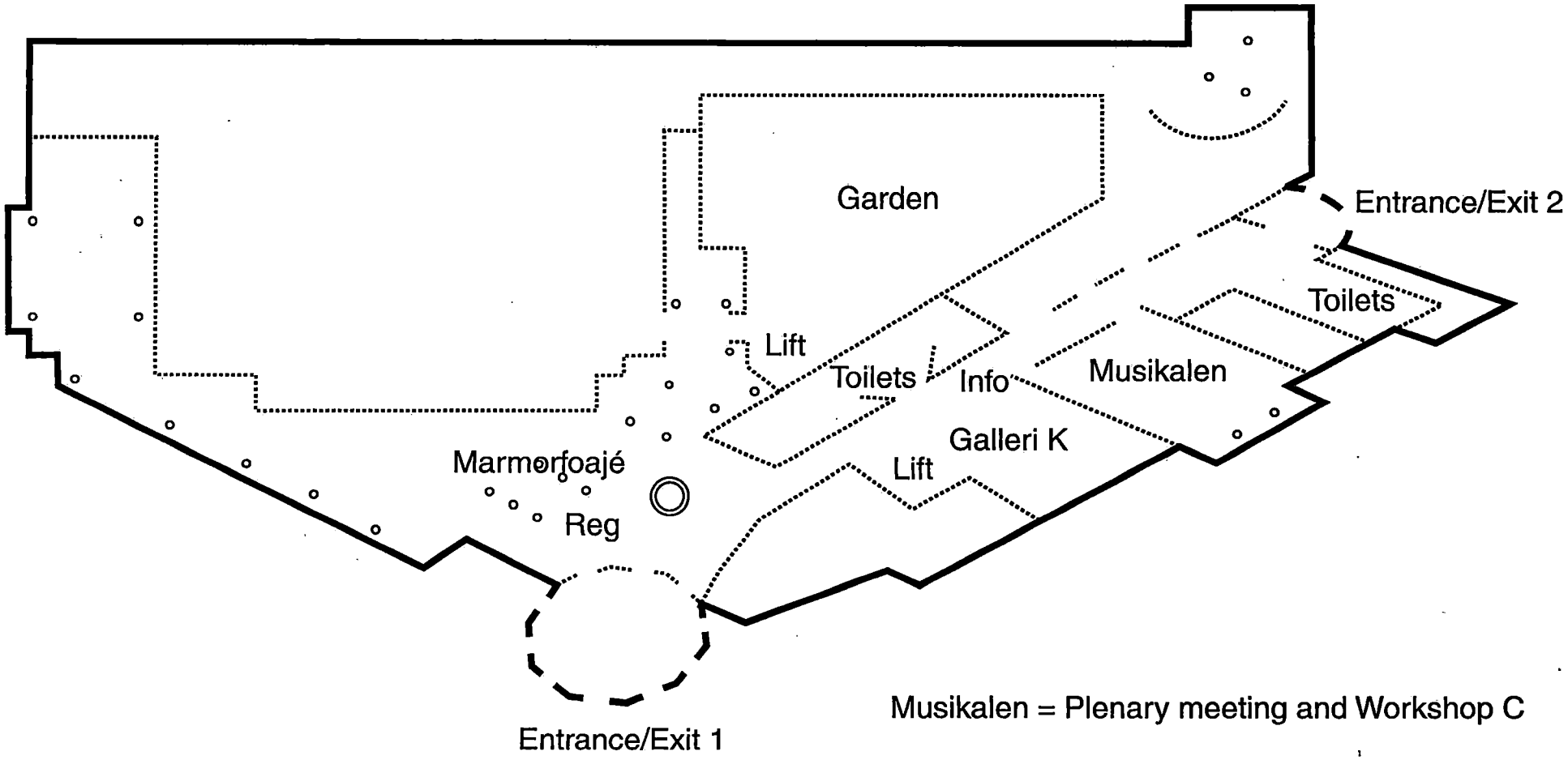
Lokaler för kongresser, kon

Facilities for congress,



Utställningsyta/ Exhibition area	Storlek/ Area	Lokal/ Room	Skolsittning/ Classroom style
Spegelsalen	150 m²	Konsertsalen	
Verdefoajén	150 m²	Konsertsalen med bakfond	
Marmorfoajén	900 m²	Musikalen	140 personer
Galleri K	140 m²	Operan	100 personer
Garden	600 m²	Sonaten	50 personer
		Operetten	50 personer
		Duetten	30 personer
		Solot	30 personer
		Spegelsalen/VIP-rum	28 personer
		Verdefoajén	90 personer

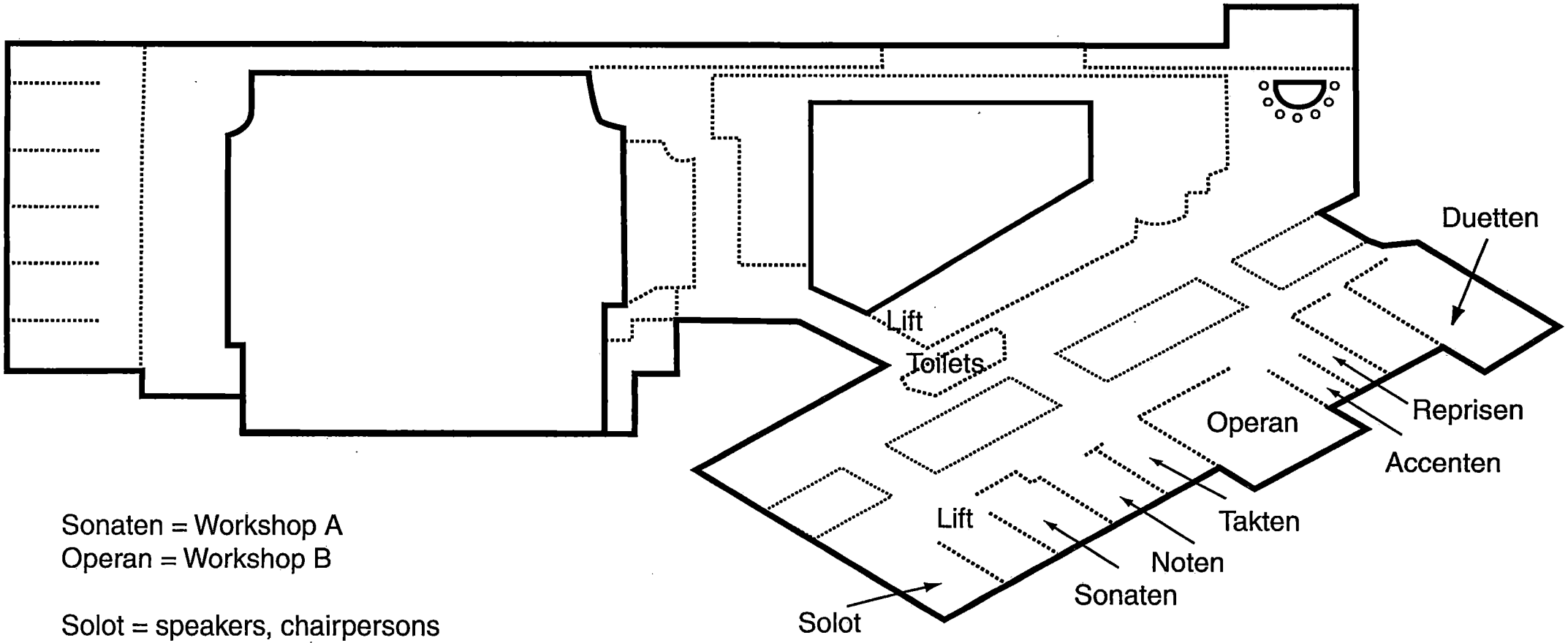
Linköping Konsert & Kongress - Base level



Musikalen = Plenary meeting and Workshop C

Reg = registration desk
Info = information desk
Galleri K = exhibition
Garden = lunch restaurant

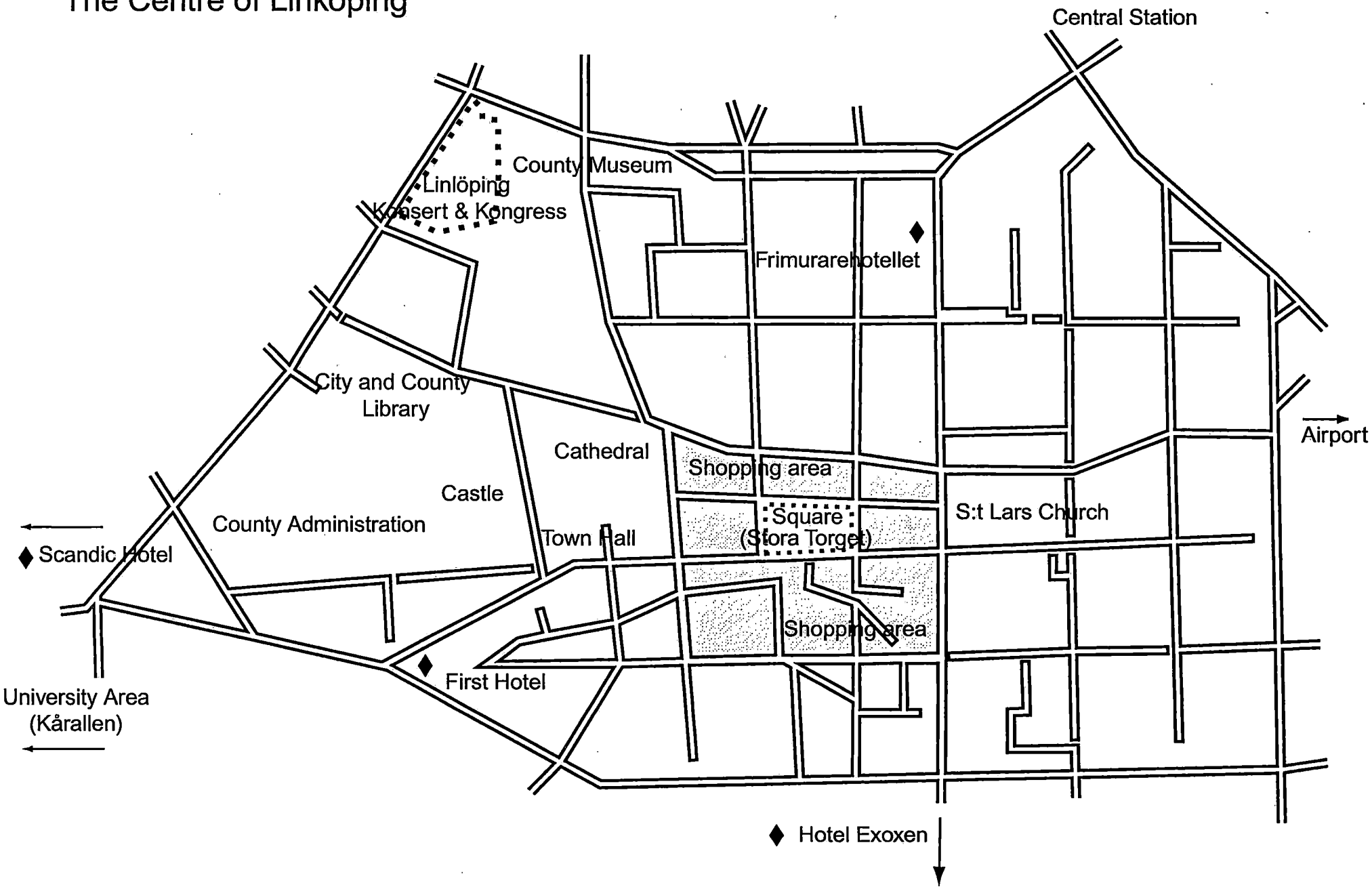
Linköping Konsert & Kongress - Top level



Sonaten = Workshop A
Operan = Workshop B

Solot = speakers, chairpersons
Noten = interpreters, personal assistants
Takten = secretariat
Accenten = bilateral room
Reprisen = press room/pressregistration
Duetten = chauffeurs

The Centre of Linköping



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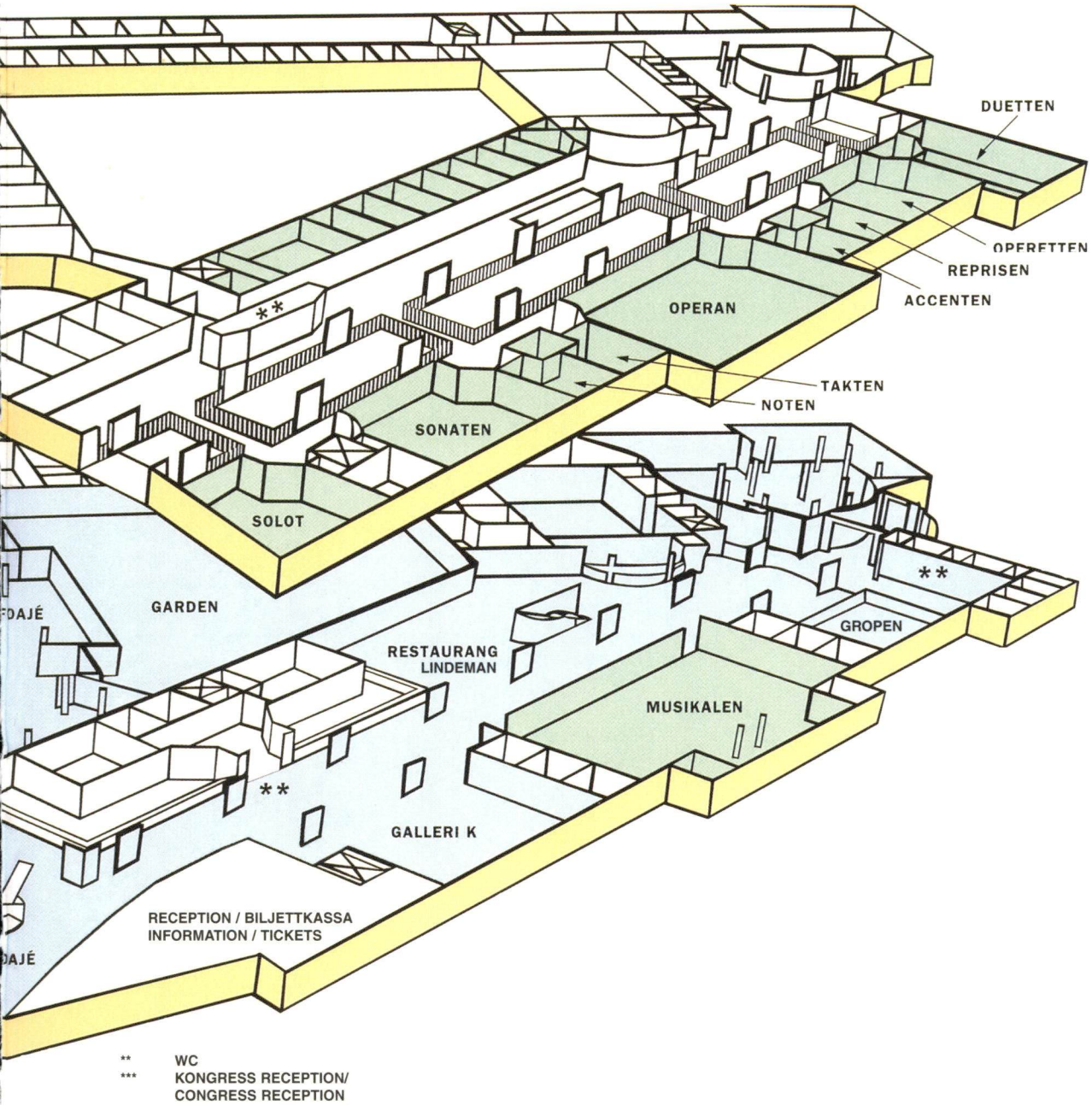

** WC
*** KONGRESS RECEPTION/
CONGRESS RECEPTION

Biosittning/ Theatre style	Storlek/ Area	Lokal/ Room	Antal/ Seats
1200 personer		Noten	12 personer
760 personer		Takten	12 personer
250 personer	250 m²	Accenten	12 personer
150 personer	170 m²	Reprisen	12 personer
90 personer	90 m²	Pressläktaren	20 personer
80 personer	80 m²	Loge 4	
50 personer	65 m²	Loge 5	
50 personer	55 m²	Loge 6	
	150 m²		
150 personer	150 m²		

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Towards a Barrier Free Europe
for
Citizens with Disabilities
– Expert meeting

Background Document

Linköping

25-26 April 2001

In all societies of the world there are still obstacles preventing persons with disabilities from exercising their rights and freedoms and making it difficult for them to participate fully in the activities of their societies. It is the responsibility of States to take appropriate action to remove such obstacles. (UN Standard Rules, Introduction, paragraph 15)[1].

States should recognize the overall importance of accessibility in the process of the equalization of opportunities in all spheres of society. For persons with disabilities of any kind, States should

a. introduce programmes of action to make the physical environment accessible; and

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[1] The Standard Rules on the Equalisation of Opportunities for Persons with Disabilities, United Nations General Assembly (Resolution 48/96).

b. undertake measures to provide access to information and communication. (UN Standard Rules, rule 5).

The purpose of the expert meeting

The purpose of the expert meeting in Linköping is to contribute to a European disability policy that makes it possible for all people to participate to the full in the life of society. The foundations on which the expert meeting builds are human rights, the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities, and the principle of non-discrimination.

At the expert meeting, plans for the future will be addressed in concrete form in three parallel workshops focusing on different aspects of accessibility: the "Design for All" concept, information and communication technology, and access to built environments.

In this document the terms people/persons with disabilities and disabled people/persons are used synonymously.

Disability Policy and Human Rights

The policies of the European Community and the individual Member States for persons with disabilities are increasingly expressed in terms of human rights and equality of opportunities. This approach is reflected both in European and international disability policy. In the last ten years a large number of countries, including for example Australia, the USA, the United Kingdom and South Africa, have passed laws prohibiting discrimination on the grounds of disability. The USA is the country that has gone furthest, with the Americans with Disabilities Act (ADA), which was passed in 1990. Persons with disabilities are citizens who have the same rights and responsibilities as all other citizens. In concrete terms this means that girls and boys, women and men in all ages must have equal rights and equal opportunities to govern their own lives and have their own wishes respected.

An important event in disability policy was the adoption by the UN General Assembly of the Standard Rules on the Equalisation of Opportunities for Persons with Disabilities, in 1993.

The resolutions passed by the UN Commission on Human Rights in 1996, 1998 and 2000 brought a definitive breakthrough for disability policy as a human rights issue. In the latest of these resolutions (CHR 2000/51), the Human Rights Commission instructs all its monitoring organs to take up the issue of disability and calls on all UN Member States to fulfil their reporting obligations by supplying information about the situation of people with disabilities. The Commission also makes the following statement, which confers a unique status on the Standard Rules: "any violation of the fundamental principle of equality or any discrimination or other negative differential treatment of per-

sons with disabilities inconsistent with the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities is an infringement of the human rights of persons with disabilities".

Another key international document is the UN Convention on the Rights of the Child[2] (CRC). The drafting and adoption of the CRC has given children with disabilities, besides children in general, a number of special rights. In addition, the CRC is the first – and so far the only – major human rights convention in which disability is listed as one of the grounds for non-discrimination.

Protection of human rights is the most important and best known of the areas on which the work of the Council of Europe focuses. The European Convention on Protection of Human Rights and Fundamental Freedoms of 4 November 1950 encompasses broadly the same types of rights that are found in the UN Covenant on Civil and Political Rights. All 40 members of the Council have signed the European Convention.

The Social Charter of the Council of Europe comprises rights corresponding to those in the UN Covenant on Economic, Social and Cultural Rights.

In its Resolution of 20 December 1996 on equality of opportunity for people with disabilities, the Council of the European Union affirmed its commitment to and support for the principles and values underlying the Standard Rules[3]. The new approach in disability policy clearly emphasises the fight against discrimination and the elimination of the obstacles that persons with disabilities encounter in their life as members of society. Several countries have introduced legislation prohibiting discrimination on the grounds of disability. In the Treaty of Amsterdam (1997), the Member States of the European Union have laid the groundwork for the promotion of equality of opportunity for persons with disabilities at the Community level. One instrument that is available is the new article (Article 13 of the EC Treaty) that gives the Council the competence to take appropriate measures to combat discrimination, including discrimination on the grounds of disability. This can be seen as a crucial step towards mainstreaming the disability perspective in the general work of the Union and exploiting the added value that the EU level in itself entails. Invoking this article, the EU's Council of Ministers passed a Directive on 27 November 2000 on Equal Treatment in Employment and Occupation, prohibiting discrimination, along with an action programme containing supplementary measures[4].

Article 100a has been renumbered Article 95 in the Amsterdam Treaty, and although there is still no reference to disability in the article itself, a declaration annexed to the Treaty does address the issue. The declaration reads:

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[2] Adopted by the General Assembly on 20 November 1989.

[3] 97/ C 12/01

[4] Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment.

"The Conference agrees that, in drawing up measures under Article 95 of the Treaty establishing the European Community, the institutions of the Community shall take account of the needs of persons with a disability."

The declaration imposes a moral obligation on the Community institutions to consider the needs of people with disabilities.

In its Communication "Towards a Barrier Free Europe for People with Disabilities"[5], the European Commission has described a series of initiatives intended to follow up the new approach in disability policy. The Commission emphasises in particular the importance of enhancing accessibility and the way that this benefits both the individual and society at large. The Commission also considers it particularly valuable for efforts to improve accessibility to take place in interaction with other intersectoral areas, e.g. consumer protection.

As part of its contribution to the preparations for the Lisbon European Council, the Commission on 1 March 2000 presented its Communication "Building an inclusive Europe".[6] At the Lisbon European Council, the Union set itself a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth, with more and better jobs and greater social cohesion. To achieve this, the European Council decided on a strategy: to promote the transition to a competitive knowledge-based economy and information society; and to sustain a healthy economic outlook and favourable growth prospects. In the Communication "Social Policy Agenda", the Commission has proposed a European Year on Disability for 2003.

The European Disability Forum is an international non-profit organisation that has 87 member organisations reflecting a broad geographical base and a wide range of concerns across the disability movement. EDF' s aim is to advance disabled people's human rights in all the relevant institutions, international organisations and agencies of the European Union in accordance with the principle of non-discrimination. EDF has welcomed the EU non-discrimination Directive in the field of employment but believes non-discrimination must progress further into all areas in which the EU has competence. EDF therefore calls for a specific non-discrimination directive for disabled people to encompass all areas of EU competence, just as the Directive prohibiting discrimination based on racial and ethnic origin covers a broad range of policy areas. In order to monitor and support the EU strategies to fight disability discrimination, EDF calls for the establishment of a European Disability Ombudsman and a European Observatory that would monitor and exchange information on legislation and good practice at European and national level.

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[5] COM (2000) 284 final.
[6] COM (2000) 79 final.

Design for All

The basic idea behind Design for All is to develop products or services that as many people as possible can use. Usability is a central term in understanding the concept of Design for All. Usability refers to products and systems that are easy to use and perform the function for which they were designed. Usability engineering helps designers to ensure that their product or system will meet the demands of the intended users. The following definition from the Center for Universal Design at North Carolina State University is commonly used:

> "Design for All (or Universal Design) is the design of different products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.
>
> The intent of the universal design concept is to simplify life for everyone by making products, communications, and the built environment more usable by more people at little or no extra cost. The universal design concept targets all people of all ages, sizes, and abilities."

However, it is generally acknowledged that it will not be possible to design everything so that everyone can use it. There will always be consumers with a combination of severe physical, sensory and cognitive impairments who will not be able to use a product or service. Nevertheless, it would be unreasonable to refer consumers with special needs to special designs for each major product or service; this approach would exclude them from the advantages of economy of scale, and hence lead to de facto discrimination. A better approach is to apply the principle of Design for All wherever possible, to strive for adaptable designs in most other cases, and to provide assistive technology to address all other needs. For example, current technology allows the use of multiple user interfaces which can provide individualised solutions.

There is a strong connection between Design for All and the concept of Human Rights. In today's society, access to and use of technical products and systems is necessary for full and active participation in community life. Equal access to technology applications should be sought. The concept of Design for All is central in this context.

At the Intergovernmental Conference in Nice, the three EU institutions – the Commission, the Council and the Parliament – jointly proclaimed the European Union's charter of fundamental rights. The charter (The Draft Charter of Fundamental Rights of the European Union)[7], takes up civil, political, economic and social rights. The charter includes the following statement: "The Union recognises and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupa-

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[7] CHARTE 4487/1/00.

tional integration and participation in the life of the community". The question of the charter's legal status will be discussed later.

In order to promote Design for All, it is necessary to raise awareness, create incentives and transfer knowledge. Awareness must be raised among designers as well as among decision makers in industry and government and the general public. Market demands from consumers and producers can serve as incentives for applying a Design for All approach, which can be strengthened by the inclusion of accessibility requirements in public procurement. Legislation and standardisation are other incentives that may prove effective, when suitable. Designers will need more knowledge about the requirements of disabled consumers as well as examples of good practice. Research and development is needed to increase and deepen this knowledge.

Out of a total population in Europe of about 800 million, it is estimated that 50 million are people with disabilities and 100 million are elderly people. These sectors of the population will have a growing disposable income and be increasingly familiar with modern technology. As people with disabilities and elderly people make up a considerable share of the market it is important to adapt products and services to meet their needs and requirements.

The Commission states in its Communication "Towards a Barrier Free Europe for People with Disabilities" that it will "seek to use its market strength to encourage the commercial construction sector to comply with the best practice in the field of accessibility standards and encourage every public authority to do so."

The EIDD (European Institute for Design and Disability) European network has played an important role in promoting Design for All in Europe. The objectives of EIDD are to:

- Promote design as a response to disability
- Initiate design solutions to meet identified needs
- Undertake studies of and provide information on the relationship between design and disability.

Standards play an increasingly important role in our lives; in particular as European standards are often incorporated in the system of EU legislation. The main objectives for standardisation are to:

- Improve safety and functionality
- Simplify design and production
- Improve cost effectiveness.

Consumer product and environmental standards should routinely address the needs of people with disabilities. Standardisation committees should be made

aware of the needs of people with disabilities as potential users of the products and services that will be produced according to the standards they are developing.

In its Mandate 283 the Commission has requested the European standardisation bodies CEN, CENELEC and ETSI to:

- Draft a guidance document explaining how to address the needs of elderly and disabled people in products standards
- Set up a mechanism to make sure that the guidance document is used
- Review existing standards.

Design for All can be actively promoted through research and development. In its Communication the Commission states, "Within the 5th framework programme, new ways to explore universal design in accessibility will be explored".

Questions

- What are the consequences of good design for persons with disabilities, above all from the point of view of human rights?
- What measures are needed to achieve good design?
  - In the Member States and candidate countries
  - Within the Commission
  - At enterprise level
- What form should these measures take?
- Which measures should receive priority?

Information and Communication Technologies

In the current transformation towards a more globalised world, information and communication technologies (ICT) occupy a front-line position. Access to information and communication technologies is an increasingly important prerequisite to enable individuals to participate actively in community life.

ICT has undoubtedly had a major impact for many groups of persons with disabilities. E-mail has meant a revolution for deaf and hearing-impaired people, providing a simple and natural way to make contact with other people. For blind and visually impaired people, it has led to an increased information supply through opportunities to access digital information. Tele-education has created new opportunities for people with mobility disabilities. There are obstacles, however, for example a lack of financial resources, which may render the technology unavailable.

New technologies can also create new barriers for persons with disabilities because of a lack of adaptations and it is essential to consider accessibility aspects in all contexts. There are also fears that ICT developments will be used as a pretext for not making society accessible, for instance by arranging distance education over the Internet instead of making the universities accessible.

In December 1999, the European Commission launched an initiative entitled "eEurope – An Information Society For All". At the Lisbon European Council in March 2000, the Member States recognised that "special attention should be given to disabled people and the fight against 'info-exclusion'". In June 2000, the eEurope 2002 Action Plan was adopted by the Feira European Council, stating that "public sector web sites and their content in Member States and in the European Institutions must be designed to be accessible to ensure that citizens with disabilities can access information and take full advantage of the potential for e-government". To this end, the Web Accessibility Initiative (WAI) guidelines for public websites should be adopted by the end of 2001.

The High Level Group on the Employment and Social Dimension of the Information Society (ESDIS), in co-operation with the Commission, will "examine and monitor legislation and standards relevant to the information society to ensure their conformity and accessibility principles". Actions are also to be taken to ensure the establishment and networking of national centres of excellence in Design for All.

The European Disability Forum has declared that it welcomes the Commission commitment to give special attention to disabled people and the fight against "info-exclusion". However, it emphasises that this must not be limited to one section of the Action Plan, but must reflect the diversity of disabled persons' interests by including actions needed for the group in all other objectives.

A Communication from the Commission entitled "Strategies for Jobs in the Information Society"[8] deals explicitly with the issue of promoting employment of people with disabilities in the Information Society by recommending the Information Society Industries to "ensure that standards for user-friendly equipment are applied to improve the employability of people with disabilities" from the year 2000.

An independent project team, working for CEN under a mandate[9] from the European Commission, has developed a report, "Design for All and Assistive Technologies", providing an extensive body of knowledge and recommendations for requirements to include persons with disabilities in ICT standardisation. The document and the recommendations are now awaiting final approval for application in the standardisation process, in line with the intentions of the mandate.

When discussing ICT, the model of legislation in the USA is often mentioned. Mostly reference is made to the Rehabilitation Act of 1973[10], which states that "When Federal departments or agencies develop, procure, maintain, or use electronic and information technology, they shall ensure that the electronic and information technology allows Federal employees with disabilities to have access to and use of information and data that is comparable to the access to and use of information and data by Federal employees who are not individuals with disabilities, unless undue burden would be imposed on the department or agency."

The Telecommunications Reform Act (1996) requires all telecommunication manufacturers and service providers to ensure that new products are accessible or compatible with assistive technology where readily achievable. This effectively creates a broad mandate for accessibility. Rather than addressing inaccessible technology already in place, the US approval process will address technologies while they are still under development. A likely effect of this legislation will be that US industry will be better placed to respond to the demographic changes in society and corresponding changes in the market.

The U.S. Access Board is now developing detailed procurement requirements. The American experience from applying such requirements in procurement procedures should be of particular value when designing the European policy.

The European project ACCENT (Accessibility in Public Procurement of ICT) has studied the question of including accessibility requirements in public procurement and to what extent this is done today. On the basis of the survey and

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[8] COM (2000) 48.

[9] Mandate to the European Standard Bodies for standardisation in the field of information and communications technologies (ICT) for disabled and elderly people (Mandate 273).

[10] Public Law 102-569, section 508.

analysis, it is concluded that the current situation regarding incorporation of accessibility requirements in public procurements of ICT in Europe is not very satisfactory. At the level of actual procurement practices, very few of the public organisations surveyed reported addressing accessibility in their procurements.

Starting with the research and development initiative TIDE (Technology Initiative for Disabled and Elderly People) and continuing with the Telematics programme in the Fourth Framework Programme and the IST programme in the Fifth Framework Programme, the European Union has supported research and development devoted to technology for persons with disabilities and elderly persons throughout the 1990s.

This has led to many interesting results from which persons with disabilities will now be able to benefit. It has also built cooperation and networks between researchers, authorities, NGOs, service providers and industry in Europe, for example the Association for Advancement of Assistive Technology in Europe (AAATE).

However, the need to develop and improve the assistive technology market and industry in Europe has been pointed out by the Commission in its Communications "Evaluation of the Bridge Phase of TIDE"[11] and "Towards a Barrier Free Europe for People with Disabilities". At present there is great fragmentation, which results in inefficient utilisation of financial and other resources.

Preparations are under way for the Sixth Framework Programme for the period 2002-2006. It is vital that the special conditions and circumstances of technology applications for persons with disabilities be fully taken into consideration.

The Information Society may introduce both new obstacles and new opportunities for persons with disabilities. By determined research and development efforts, coupled with policy decisions, people with disabilities should be able to benefit from the opportunities and the possibilities that information and communication technologies offer. Cooperation between actors across national boundaries increases the potential for positive results.

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[11]COM (2000) 727.

Questions

- How can procurement be used to promote accessibility?
- What can be done to give attention to disability requirements in all relevant parts of the Action Plan for eEurope?
- How should ICT, disability and accessibility be treated in the Sixth Framework Programme?
- How can research results be utilised better?
- How can the assistive technology market and industry be developed and consolidated?
- What can be done to ensure that disability requirements are taken into account in standardisation?
- How can cooperation and networks be strengthened?

Accessibility to the built environment

The free movement of persons is these days considered an inherent right in European citizenship. Beginning with the idea of free movement for workers and subsequently extending to family members, the self-employed and students, free movement of persons has gradually been established by the creation of a single market. However, the progressive establishment of an area of freedom, security and justice remains in continuous development.

For persons with disabilities free movement as an aspect of European citizenship is not merely a convenience or social and/or economic necessity, it is often the condition that decides whether or not inclusion in the activities of the Union is possible at all. Accessibility, as the UN Standard Rules assert, is of overall importance in the process of equalisation of opportunities in all spheres of society. The UN Commission on Human Rights also clearly includes inaccessibility as an infringement of the human rights of persons with disabilities.

Efforts to ensure the right to equal access and an open society have already set their mark on the developing European Union. The inclusion of a general non-discrimination article in the Treaty of Amsterdam, together with the Conference of Amsterdam Declaration manifesting the need for more inclusive EU standards, could be considered a step towards greater mobility for persons with disabilities. The need to promote measures for approximation of Member States' legislation and adoption of more inclusive standards translating the concept of non-discrimination into real life equal access, are also firmly stated in the Commission's Communication "Towards a Barrier Free Europe for People with Disabilities".

However, creating an accessible built environment is a complicated process. For example, a series of accessible features encountered by a person with a disability moving through the environment constitute mere possibilities; every single obstacle on the other hand is a potential total barrier. Freedom of movement therefore implies the accessibility of the "whole chain" of structures encountered. EU efforts in the area of accessibility to transport, including among other things the Bus and Coach Directive and COST 335, can thus be thwarted by inaccessible station buildings, platforms etc.

The complexity also derives from the long life span of most building constructions. Measures on a policy level to ensure future accessibility will probably not cover the problem of inaccessible environments already in existence. Rules and regulations for current construction projects, whether mandatory or not, are not applicable retroactively. Creating access to existing environments, which differ in their design on account of the different time periods and architectural trends they represent, will involve entirely different measures.

Furthermore legal approximation is difficult since the legislative systems dealing with accessibility to the built environment differ among the Member States.

The internal market as an area for freedom of movement for goods, services and persons, could benefit from a harmonisation of building standards aiming at accessibility as well as safety. Building constructions per se are not objects that we usually picture as being included in the concept of freedom of movement for goods. But to a large extent, the built environment is constructed of materials and pre-fabricated building parts that are very much a part of the goods traded on the internal market. EU legislation is starting to address this issue, for example in the Lift Directive, which sets out specific points for access to new lifts.

Indirectly standards in the building field could also create freedom of movement for goods other than building materials and parts. As mentioned above, transport is an area of vital importance to the market, where standards could benefit the free movement of goods as well as services. For example the design of boarding devices for buses and trains needs to take into account the height and design of platforms. Further, staff responsible for passengers and luggage could benefit from the availability of suitable working equipment; here compatibility between the devices and the environment is decisive. Machines, tools and working methods could more easily be incorporated in goods and/or services "crossing" national borders, if the fundamental characteristics of built environments were more uniform.

EU policy in the employment field is an area in the process of development; the issue of a good and safe working environment will need to include the question of accessible working environments for citizens with disabilities. The recent Framework Directive prohibiting discrimination in employment and occupation covers both direct and indirect discrimination as well as demands for reasonable accommodation/adaptation measures, requiring employers to adapt the working environment for persons with disabilities. This will put accessibility high up on the agenda.

In the Communication "Towards a Barrier Free Europe for People with Disabilities" the Commission clearly states its view that "the European Union should promote accessibility in a co-ordinated way among several policy fields". Some of the initiatives envisaged are:

- In consultation with the industry and users, the Commission will identify those areas where it would be appropriate to implement EU mandatory accessibility standards for the built environment.

- Many new transport and infrastructure projects are being planned or constructed in Europe with the support of EU funding. This is the case in particular as far as Trans-European networks and the Structural Funds are concerned. The lifetime of transport equipment and infrastructure can be extremely long and it is vital to consider accessibility requirements from the outset. The Commission will seek that projects considered for EU funding incorporate accessibility requirements, to

approved standards or recognised best practise, into the design and construction.

- The Commission will seek to use its market strength to encourage the commercial construction sector to comply with the best practice in the field of accessibility standards and encourage every public authority in Europe to do so.

- The Commission will explore appropriate ways to promote at EU level measures seeking that architects, construction engineers and others involved in the design and construction of the physical environment have access to adequate information on disability policy and measures to achieve accessibility.

- Within the Fifth framework programme, new ways to promote universal design in accessibility will be explored, for example, promoting housing that is easily adaptable across the lifecycle and to meet differing accessibility needs.

In its response to the Commission's Communication, European Disability Forum, welcomes the initiatives. EDF also calls on the Commission to undertake an extensive study of the rules and regulations regarding disability access to the built environment that exist across the different European Union Member States.[12]

Questions

- Accessibility to the built environment for persons with disabilities is considered a necessary quality from a human rights perspective. How can this be transformed into added value from the perspective of the European Union?

- To target the most appropriate policy processes and fields some form of study would be necessary. Which Union goals (overall and operational) should be the subject of such a study? What form should such a study take?

- The scope of any study or proposal decides, in itself, the outcome of the process. How could the scope be defined? Which target areas and whose interests should be addressed in such a study?

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[12] EDF Response on the Commission proposal Towards a Barrier Free Europe for People with Disabilities, EDF 00/26 November 2000.

Documents

European Documents

Resolution of the Council and of the Representatives of the Governments of the Member States meeting within the Council of 20 December 1996 on equality of opportunity for people with disabilities (97/C 12/01)

The Social and Labour Market Dimension of the Information Society People First

COM (1997) 390

Strategies for Jobs in the Information Society COM (2000) 48

Building an inclusive Europe COM (2000) 79 final

Towards a Barrier Free Europe for People with Disabilities COM (2000) 284 final

Proposal for a decision of the European Parliament and of the Council establishing a programme of Community action to encourage cooperation between Member States to combat social exclusion COM (2000) 368 final

Social Policy Agenda COM (2000) 379 final

Evaluation of the Bridge Phase of TIDE (Technology Initiative for Disabled and Elderly people) COM (2000) 727

eEurope 2002. An information society for All. Action plan prepared by the Council and the European Commission for the Feira European Council 19-20 June 2000.

Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment

The Draft Charter of Fundamental Rights of the European Union CHARTE 4487/1/00

European Disability Forum (EDF)

EDF 99/4 European Manifesto on Information Society and Disabled People

EDF 99/13 How Article 13 directives can Combat Disability Discrimination

EDF 00/3 EDF response to 1999 Telecommunications Review

EDF 00/4	EDF response: Community Action Programme to Combat Discrimination
EDF 00/7	EDF response: European Commission e-Europe initiative
EDF 00/8	Position on the framework Directive On Equal Treatment in Employment and Occupation
EDF 00/10	Universal service and users' rights - electronic communications networks & services
EDF 00/14	EDF response: EU Social Policy Agenda
EDF 00/26	EDF Response on the Commission proposal Towards a Barrier Free Europe for People with Disabilities

The United Nations

The Standard Rules on the Equalisation of Opportunities for Persons with Disabilities, United Nations General Assembly (Resolution 48/96)

The UN Convention on the Rights of the Child, UN General Assembly, 20 November 1989

Check against delivery

Workshop A: Design for All

Thursday
April 26

How to increase the demand for Design for All

Speaker: Lars Lindberg, Head of Section
The Office of the Disability Ombudsman, Sweden

Introduction

My name is Lars Lindberg and I am in charge of the operations at the newly established Accessibility centre in Sweden, under the auspices of the Disability Ombudsman. Some important tasks ahead of us are to push forward the development of authorities, communities and other bodies with regard to accessibility. It is also our responsibility to gather, develop and provide knowledge and guidance, as well as to co-operate with the relevant parties.

The tax financed model

From a Nordic perspective, we can claim to have achieved much in many areas, and particularly with respect to technical aids: over the years, we have been able to offer relatively advanced technical aids to people with disabilities, at practically no cost for the individual. This was strongly supported by the fact that the Nordic welfare model has often been met by a readiness from society to invest tax proceedings in development and financing of assistive technology according to the needs. Unfortunately, the utilitarian aspects embedded in this principle have enabled communities, companies and others to circumvent the responsibility of integrating accessibility in their activities and production. Assistive technology have become the main alternative, rather than a completing solution. Since it is tax financed, the same goes for the fact that responsibility for accessibility is a State issue.

However, this is now going through changes. In Sweden, we have adopted a national action plan for disability, stating that general accessibility must per-

vade society. The State has set 2010 as the general deadline for the Swedish society to be accessible to people with disabilities in its essential parts. This represents of course an enormous challenge, in which the concept of Design for All plays a major role.

Design for All

As all of us here know, Design for All is the basic idea that products of various kind should be designed as much as possible to suit all categories of people, without needing special adaptation. The concept has really taken off within the last few years, as this conference is a sign of. Design for All is strongly linked to a human rights perspective. Disabled people increasingly require equal rights and opportunities, and this must have an impact on the design of products and environments surrounding us.

Design for All at its best

IT has particularly yielded important changes. It is easy to derive exaggerated expectations from new technologies – and this does not only apply to capital investors on the American Nasdaq market. On the other hand, we should not underestimate the possibilities offered to us. Being hearing impaired, I have acquired an incredible appreciation for email. Not only because I no longer have to make calls and find it hard to understand the person on the other end. Other examples are mobile phones and SMS, which Telia, Sweden's largest telecommunications provider marketed with a very big campaign on the theme: "Do you remember when you only used your mobile phone to talk". It was illustrated by a class from the school for deaf children in Stockholm, in which every student had a mobile phone. Both examples show the freedom revolution conveyed by products for general use. As hearing impaired, you can now communicate with your environment like anybody else. The most useful lessons to learn from this are, of course that it does not reek of disability adaptation and is not seen as strange, but maybe more importantly, that when "accessibility solutions" become inherent in daily products, an enormous supply is created.

Important aspects to consider are the strategies needed to enlarge the base for shoring up Design for All. Improved education and actions to increase the awareness of professional groups such as architects, designers, and manufacturers are of course necessary, particularly in professional training, but not sufficient. They must also be related to motivation. Or maybe I should say to a bigger push for transformation, in order to open up for the demand. We have various types of instruments at our disposal, and I would like to mention two of them in particular.

Legislation: to create laws in different ways, which clarify the responsibility for accessibility. On the topic of legislation, USA has taken the lead. One example

of this is of course the Americans with Disabilities Act, which has naturally put accessibility issues in focus, since insufficient access can be considered as discrimination. Psychologically, this has created a change: the attention and the responsibility have moved from the individual to the responsible of the activity. This represents an enormous transformation, particularly for the disabled people's self-image, since they no longer have to resort to appeal. But this shift in perspective has also led to an increased demand for knowledge, both legal and on how to achieve accessibility.

The Telecommunication Act is another American law, requiring all telecommunications manufacturers to have products accessible or compatible with assistive technology, provided this is readily achievable. The U.S. Access Board plays a major role in the outline of provisions, thus creating a broader base. A good example of areas in which the requirement of accessibility in daily products has been very successful is the obligation to include closed caption - a decoder - in TV-sets over a certain size, allowing them to receive subtitled programs. Closed caption is basically standard in modern TV-sets in USA, which makes it easier for TV and video companies to discover the advantages of subtitling their films. It was for example observed that far more than the hearing impaired and the deaf watched subtitled programs, a fact likely to have passed unnoticed if closed caption were a separate disability aid.

At the European level, the introduction of article 13 against discrimination has increased the focus on discrimination on the ground of disability. But even article 95, regulating the legislation process has a certain significance, since it summons the Commission to take into account health, safety and protection of the environment and the consumers in its proposals. Even though disability is still not mentioned, a declaration in one of the Charter appendixes states that when implementing article 95, provisions should be made for the needs of people with disabilities.

Procurement

The public sector is an important client in all economies world-wide. Funds flowing from public procurements account for 14% of EU's GDP. Public procurement is a crucial issue for the future, and because of its significance, requirements related to it will have important spin-off effects on product development and design.

Public procurement is not totally easy, since some fundamental Community Law principles need to be followed; they include free movement of goods and services, non-discrimination, and equal treatment. Community requirements have resulted in the fact that it is particularly the economic aspects, i.e. the lowest price or the financial advantages, which tip the scale. The procurement specifications need to be relevant. But accessibility requirements represent to a high degree a qualitative aspect of the product.

USA has some experience of accessibility in connection with public procurement. One American law text of interest is section 508 of the Rehabilitation Act, as it states that public authorities need to ensure that procurement of electronic and information technology allows public employees with a disability to use it, provided it does not lead to undue burden.

Accent

The European project ACCENT (Accessibility in public procurement of ICT) is one of the few studies made on accessibility and procurement. It reviewed accessibility issues and their extent in information technology, which has shown to be small.

In the light of these results, some recommendations were outlined with the purpose to clearly define accessibility of information technology as an objective and mainly a technical aspect of public procurement, and ensure that accessibility be given greater importance within WTO and other bilateral agreements.

Conditional public funding

A similar instrument consists of relating accessibility to public funds, as in the Charter on access to transport services and infrastructure that was adopted at the European Conference for Ministers of Transport (EMCT) in Warsaw, 1999. The Charter stresses the governments' responsibility for making all new infrastructure accessible to the disabled. In the same way as the UN Standard Rules, it is not legally binding, but engages governments to live up to its contents.

The Charter claims for example that new infrastructures considered for public funding (at a national or international level) must, as a condition of this funding, be constructed to high standards of accessibility for the disabled.

What can we learn from environment policy?

I think that all of us who work with accessibility can learn a lot from the way environmental issues are dealt with, as they have had a great impact, especially on the public. From being almost completely regulation-driven, the environment area is now increasingly pushed forward by the companies themselves. Today, obvious marketing motives lie behind the production of environmentally friendly products. One general difference is, of course, that it is probably easier for environmental issues than for Design for All to win public involvement, and thereby consumer powers. But there is still a great deal of inspiration to draw from the way environmental work is organised.

Environmental management systems, based on ISO 14 000 play a major role in corporate environmental work. It is a systematic way of working with environmental issues, which helps companies, authorities or organisations to coordinate, plan, implement, control and improve their environmental activities in a prepared and efficient way. Based on the assumption that the company follows the legislation in force, it is mainly a tool to distribute responsibility, give priority to, communicate, follow-up and control the actions. It comprises the following phases: a preliminary study to examine the company's impact on the environment, the drafting of an environmental policy, and an action plan. It is important to note that the system in itself gives no indication of how environmentally friendly a company is, but only defines its ambitions in that respect, their yearly increase, and the systematisation of the work.

Experience from environmental work shows, among other things, that success is largely dependent on the management's involvement in the issue. The affected personnel need a well-defined distribution of responsibilities and work tasks. Another observation is that smaller companies and communities especially, have an extensive need of concrete guidance throughout the work process.

Universal Design Research Project

In many ways, these remarks concur with a study made by Tracecenter in the USA, which examined how 22 companies worked with Universal Design. Some characteristics found in larger companies were support from senior management, use of product development processes to institutionalise Universal Design, and of transversal teams in product development.

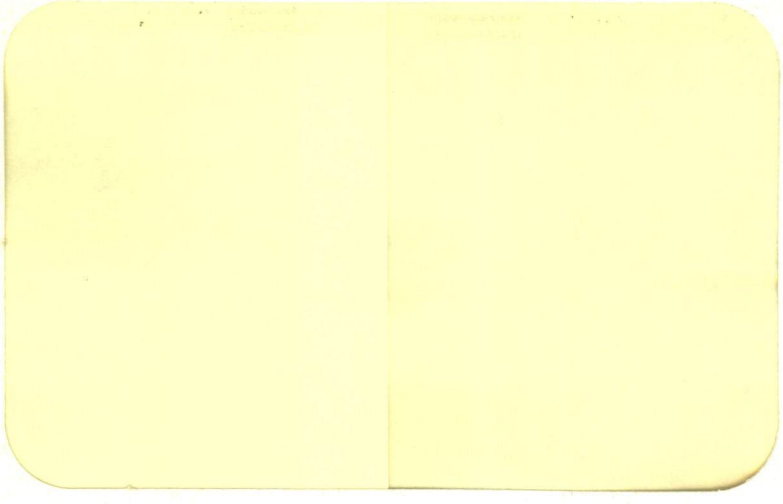
Small companies tended to employ enthusiasts. It was also noted that companies influenced by legal regulations on accessibility were more open to adopt a Design for All strategy. However, this also applied to companies trying to prevent the introduction of such legislation.

Conclusions

Today's development is increasingly oriented towards a human rights perspective and democratisation requirements. On a moral level, conditional public procurement makes it clear that the common resources to which all citizens contribute as taxpayers should not support discrimination and exclusion of society members. But it also plays a major role by representing such an important stake on the market, with the power to influence and transform. In conjunction with more severe legislation, this can lead to significant changes. Let us take up this challenge.

REquest

evaluating assistive technology



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Product Comparison

Wheelchair Cushions

February 1991

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Table of Contents

An Introduction to This Product Comparison 1

Intended Purpose of Wheelchair Cushions 1

Scope of This Product Comparison 2
- Foam cushions 2
- Flotation cushions 2
- Alternating pressure cushions 3
- Hybrid wheelchair cushions 3

Pressure Sores 4

Wheelchair Components 5

An Occupational Therapist's Perspective on Cushions and Pressure Relief 8
- Pressure Relief\Weight Distribution 8
- Postural Support 11
- Comfort 12
- Choosing the Correct Size Wheelchair and Cushion 15
  - Width 15
  - Depth (also referred to as length) 15
  - Height (also referred to as depth) 16
- Additional Cushion Considerations 17
  - Wheelchair Cushion Covers 17
  - Caring for the Wheelchair Cushion 17
  - Transportability and Use 18

Reported Problems 18

How to Use the Comparison Charts 26

Explanation of Chart Terminology 26

Product Comparison Charts 27

Appendix 55
- Standards 56
- Citations from 'Health Devices Alerts' Database and 'Health Devices' 57
- Bibliography 58
- Manufacturers 59

An Introduction to This Product Comparison

Product Comparisons are published to enable interested persons to perform their own survey of the variety of models of assistive devices which may meet their needs or their client's needs. This Product Comparison of wheelchair cushions presents side-by-side specification sheets for most of the known wheelchair cushions available in the United States. Also, this Product Comparison includes significant selection information such as type of cushion, available sizes, materials, warranty, and prices. Information regarding wheelchair cushions has been obtained from the manufacturer's published sales literature. In addition, manufacturers are contacted to obtain supplemental data regarding their products.

Intended Purpose of Wheelchair Cushions

Wheelchair cushions, if properly chosen, can provide comfort, aid stability, promote proper posture, and absorb shock. Most importantly for some users, wheelchair cushions can also act to reduce localized concentrations of pressure that occur while sitting. However, a wheelchair cushion alone cannot prevent pressure ulcers; users must frequently relieve pressure by performing pushups in the wheelchair or use other methods to shift their position. (See Tips on Pressure Relief section for additional information, page 10).

Wheelchair cushions must be carefully chosen since a cushion that is optimal for one person may be inappropriate for another. **Pressure ulcer history, amount of postural support needed, body weight, continence, transfer technique used, and ease of care** are the major considerations in the choice of materials for wheelchair cushions, particularly for long-term everyday use by individuals with disabilities.

Wheelchair cushions are part of the total seating system; their shape and dimensions must fit the user's wheelchair and adapt to other seating components. The person's **size, activity level, age, functional abilities, and the wheelchair cushion's appearance** are other important factors in the selection of a wheelchair cushion. In addition, wheelchair cushions that require frequent **maintenance** (e.g., recharging a battery, adjusting air pressure) may not be appropriate for users who cannot perform the maintenance themselves and who do not have a caregiver who can assist them.

Mass-produced cushions are not always suitable for people who require maximum postural support or for those who have severe, chronic decubitus ulcers; these individuals and others may require customized seating provided by rehabilitation professionals in special seating clinics.

The user and the health care professional can choose from many wheelchair cushions that vary greatly in cost, weight, material, availability, and ease of use. Since the late 1960s, many types of wheelchair cushions have become available: polymer foams, flotation cushions (e.g., air, gel, and water) hybrid cushions, and

dynamic externally powered alternating air pressure systems.

Scope of This Product Comparison

This Product Comparison includes all types of mass-produced wheelchair cushions.

Various classification systems are currently used to describe wheelchair cushions. This Product Comparison identifies four basic types: foam, flotation, alternating pressure (dynamic powered), and hybrid.

Foam cushions

Foam cushions consist of latex or polyurethane (usually one to four inches thick) covered with fabric and/or vinyl. Foam wheelchair cushions can be classified as high-density or low-density, describing how close together the foam cells are spaced relative to one another. Both high- and low-density foams come in closed-cell or open-cell form.

Cells are created in the foam by introducing gas bubbles during the manufacturing process. In closed-cell foam, the foam cells are self-contained units that restrict the passage of air or fluid among them. The individual air (or gas) bubbles that are created in closed-cell foam are sealed. The air (gas) remains within the cell. Closed-cell foams are generally denser and firmer than open cell foams.

Open-cell foams allow free passage of air or fluid among the cells. Open-cell construction is more breathable but more susceptible to deterioration if it soaks up water or urine. Open-cell foams are usually less dense and softer than closed-cell foams. The foam is made of more of a web-like structure rather than a series of cells. Open-cell foams can absorb liquids. Sponges are open-celled.

Foam cushions are available in various sizes, shapes, thicknesses, and densities and can often be easily modified to fit the needs of the user (See Figure 1). Manufacturers often refer to the indentation load deflection or ILD of a cushion, which is a measure of the cushion's stiffness. The ILD is the amount of weight in pounds that will compress the cushion 25%. Foam cushions are available in a wide range of ILD's. Typically, foam cushions weigh less than 3 lbs. (See An Occupational Therapist's Perspective on Cushions and Pressure Relief for more information, page 8).

Flotation cushions

Flotation cushions are composed of a container (usually made of plastic) partially filled with a flotation substance. The flotation substance can be gel, water, viscous fluid, air, dry polymer (e.g., Akton) or polystyrene beads. Flotation cushions change shape to adapt to an individual's body contour when seated. The material in these types of cushions flows from high pressure areas such as under the buttocks to low pressure areas.

Flotation cushions vary greatly in weight depending on the type and amount of

flotation substance used. Air and polystyrene bead-filled cushions are typically the lightest, while gel and dry polymer-filled cushions are frequently the heaviest. Flotation cushions range in weight from 1 to 15 lbs.

Gel cushions are composed of a liquid or solid gel that is usually sealed inside a plastic container (although certain cushions are filled by the user or a rehabilitation professional). Gel cushions often have fabric covers to improve their appearance and make them less cold to the touch for the user with intact temperature sensation. They typically weigh 7-15 lb.

Water cushions, similar to gel cushions in their construction, often have multiple compartments and can be combined with foam. They often contain an algecide to ensure cleanliness. They are usually lighter than gel cushions and weigh 2 to 6 lb.

Air cushions are available in various configurations: individual air cells (shaped like the bottom of an egg crate), lengthwise sectioned cushions (like an air mattress), or sectioned with button-like cells that make them look like a buttoned, upholstered cushion (See Figure 2). They are usually lightweight (1 to 3 lb).

Dry polymer cushions are similar to gel cushions in appearance and consistency. They are composed of a soft synthetic rubber contained within a thin elastic film covering. These cushions have an outer cover made of knit cloth or an insulated material. They typically weigh 8 to 14.5 lb.

Alternating pressure cushions

Alternating pressure systems use an external power source to vary the pressure on the wheelchair cushion surface. They consist of rows of air compartments that are inflated and deflated in sequence, or individual cells that alternately rise and lower (See Figure 3). These systems allow intermittent pressure relief but can create areas of higher pressure because only a portion of the cushion's surface contacts the user at one time. They weigh approximately 15 lbs. including the pump.

Hybrid wheelchair cushions

A hybrid flotation, or composite, wheelchair cushion typically has a foam base and an additional layer(s) of gel, viscous fluid (e.g., Flolite), or dry polymer. Some hybrid cushions are composed primarily of gel or water impregnated with foam for added stability. Others have a layer of gel located on top, closest to the skin, with the bulk of the cushion made of foam. In others, the cushion consists of horizontal layers of foam and gel with the top and bottom layers made of foam and a gel layer in the middle. Those made with a combination of dry polymer and foam have a layer of each in various thicknesses. These hybrid flotation wheelchair cushions typically weigh 5-9 lbs; they can weigh as much as 25 lbs (See Figure 4).

Hybrid foam cushions consist of different densities of foam in multiple layer (See Figure 5). They typically combine horizontally oriented layers with a lower density foam on the top surface (next to the user's skin) for comfort and a bottom layer

of high-density foam to add stability. They are lighter than hybrid flotation cushions and typically weigh less than 5 lbs. (See An Occupational Therapist's Perspective on Cushions and Pressure Relief for more information, page 8).

Pressure Sores

People with certain disabilities often lack sensation, spend long periods of time sitting, and sometimes cannot shift their weight normally. Thus, they are more susceptible to pressure ulcers (also called pressure sores or decubitus ulcers). Prolonged or high pressure compresses the soft tissue between the surface of the skin and bony prominences, closing the small blood vessels (capillaries) and decreasing the blood supply in that area. Unable to receive the nutrients that keep it alive, the tissue dies and an ulcer is formed. In severe cases, underlying tissue such as muscle, joint capsule, or bone can become exposed.

In addition to pressure from sitting, other external factors such as shear stress (physical stress caused by twisting, sliding or turning) and friction (rubbing) can cause pressure ulcers. An increase in the amount of moisture against the skin, which can cause skin to break down, is another risk factor (Fisher et al. 1978; Stewart et al. 1980; Nelham 1984). Increased moisture against the skin is often a result of incontinence or excessive sweating. Other factors such as poor circulation, lack of sensation, poor nutrition, and aging can contribute to the development of pressure ulcers.

Pressure ulcers can interfere with daily activities, lead to infection, and can entail a long and difficult healing process that requires prolonged bed rest and expensive medical care. The National Pressure Ulcer Advisory Council reports that the incidence and prevalence of pressure ulcers is difficult to determine accurately (See Bibliography). Inconsistencies or inaccuracies in data collection may account for the wide range of medical costs associated with pressure ulcer treatment reported in the literature. Estimates for average per case costs in an acute care setting vary widely, between $2,000 and $30,000. However, aggressive treatment of very involved cases frequently costs over $100,000. In addition, pressure ulcers can be seriously debilitating and can compromise an individual's health.

Some users who have already experienced pressure ulcers may benefit from a cushion with a cutout design (See Figure 6). Many authors (Ferguson-Pell et al. 1980; Key et al. 1978; Nelham 1984; Lim et al. 1988; Peterson et al. 1982) report that cutout designs can decrease pressure over the ischial tuberosities. To use cutouts effectively, a health care professional should measure the cutout area precisely for each individual and provide a means of anchoring the cushion to the chair to ensure correct and consistent placement. A flexible cover should be used, and these cushions always require a firm base because a sling seat that sags can alter the size and shape of the cutout (Ferguson-Pell 1986). Some clinicians measure the actual pressure over bony areas before determining the size and location of the cutout area (See An Occupational

Therapist's Perspective on Cushions and Pressure Relief, page 8).

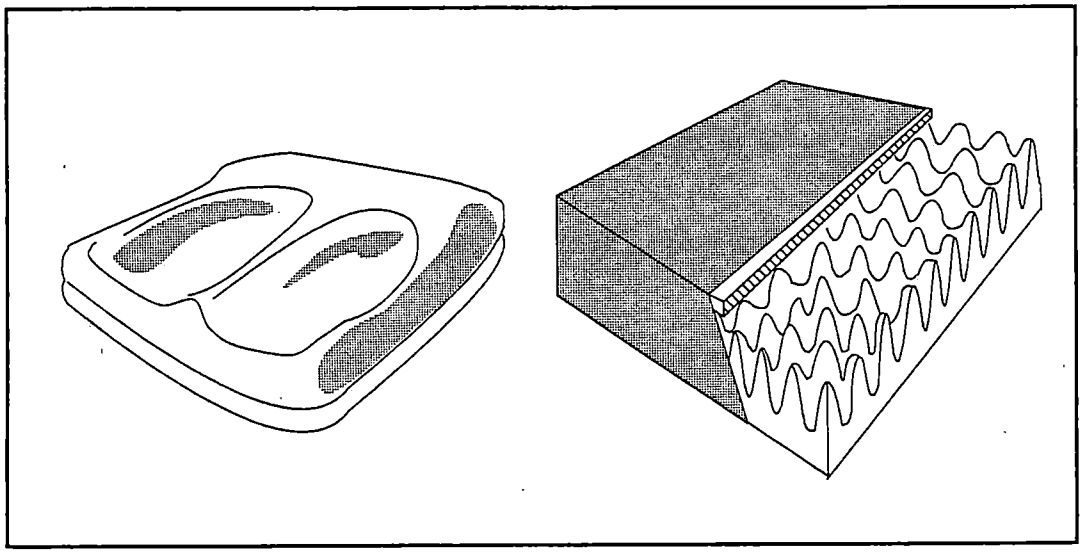
Improperly applied cutouts can cause additional concentrations of pressure around the perimeter of the bony area and cause a pressure ulcer to develop or worsen an existing sore. Some rehabilitation centers suggest turning the foam cushion upside down after making a cutout. This technique relieves pressure over the ischial tuberosities, provides a thin layer of foam against the bony area, and can provide more even pressure distribution in areas next to the cutout.

Wheelchair Components

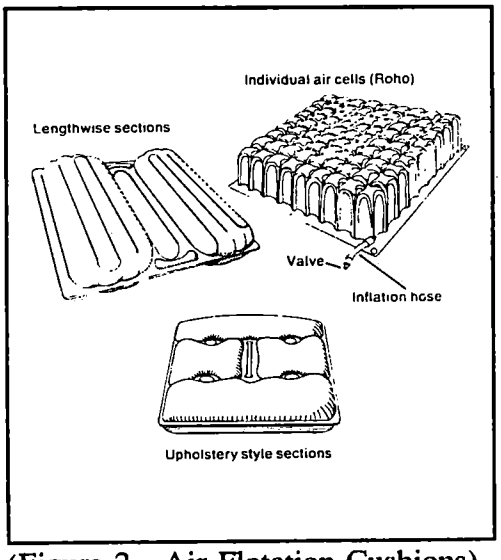
Wheelchair cushions form one component of the user's seating system and are used with other devices such as **lateral supports** and **lap belts**, as well as the **wheelchair** itself. The user's specific needs (e.g., for postural support and stability) must be considered in order to choose the most appropriate wheelchair cushion. Wheelchair cushions can help position the user properly but cannot substitute for the support that other seating components should provide. For example, a wheelchair cushion cannot correct poor sitting posture caused by a wheelchair back that is too low to support a user with weak trunk muscles.

Any wheelchair that will be used on a long term basis should have a solid insert or seat (which typically replaces the hammock seat beneath the cushion to prevent sagging of the seat). A solid seat provides more stability for the pelvis, which is the key to overall body positioning. Solid seats provide more support than a sling seat and decrease the shearing forces that result from friction against the skin. Solid seats or inserts must be removed before folding the wheelchair.

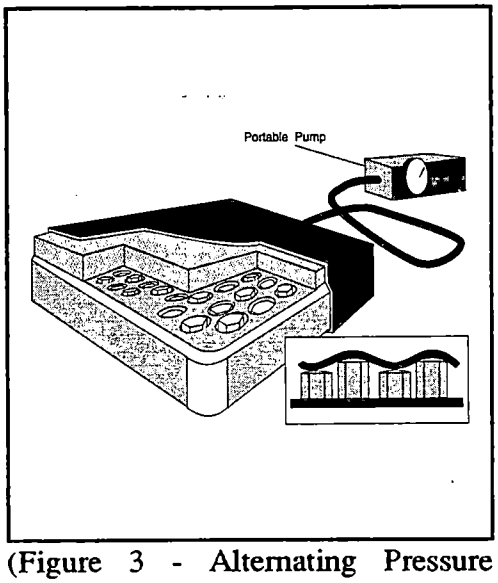
The position of **wheelchair armrests** and **footrests** can influence the amount and location of pressure. Wheelchair armrests support the weight of the arms and help the user transfer in and out of the wheelchair. In wheelchairs without armrests, users typically rest their arms in their laps and add more total weight (and pressure) on the legs and the bony part of the buttocks (ischial tuberosities). The position of the footrests also influences how much pressure develops: when they are placed too high, more pressure is added to the bony part of the person's buttocks, instead of distributing pressure evenly over the thigh and buttock areas. If the footrests are too low, the pressure under the thighs increases.



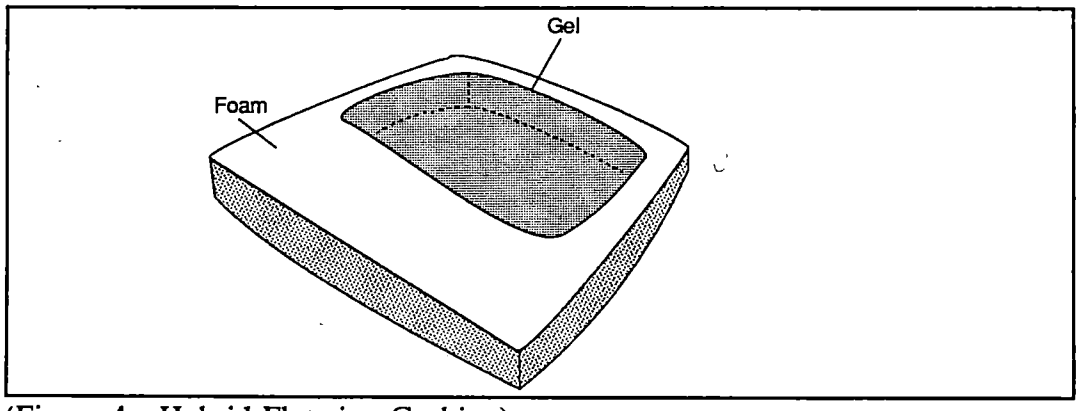
(Figure 1 - Foam Cushions)



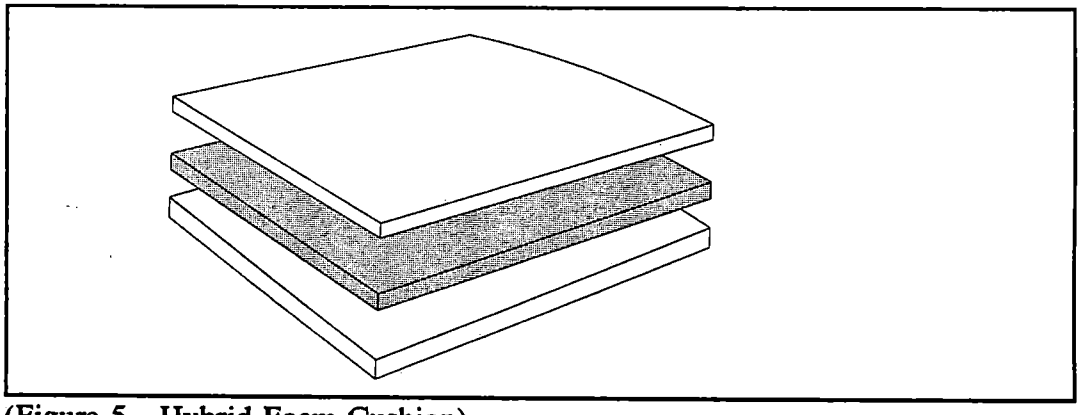
(Figure 2 - Air Flotation Cushions)



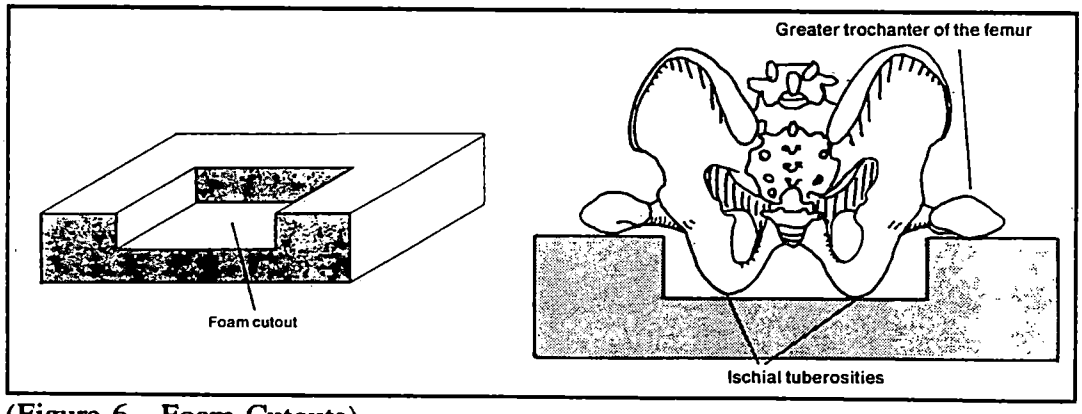
(Figure 3 - Alternating Pressure Cushion)



(Figure 4 - Hybrid Flotation Cushion)



(Figure 5 - Hybrid Foam Cushion)



(Figure 6 - Foam Cutouts)

An Occupational Therapist's Perspective on Cushions and Pressure Relief

By Anita Perr, OTR\L

The opinions and advice expressed in this perspective are strictly those of the author, as professional medical opinions may vary. Therefore, consult your physician, clinician, or a competent professional before using the information presented here.

Many factors influence selection of the appropriate wheelchair cushion. The importance of choosing an appropriate wheelchair cushion increases if the user has difficulty changing positions or maintaining and upright posture. Additionally, the more time a person spends in the wheelchair, the more important it becomes to have the most appropriate cushion style and size. The wheelchair and cushion should provide support and not cause or increase pain. Together the wheelchair and cushion should enhance the ability of the individual to function and be more mobile.

As mentioned earlier, the reasons for using a wheelchair cushion can be divided into three general areas: pressure relief\weight distribution, postural support, and comfort. All three are important, however, each area needs to be prioritized according to the individual's need.

Pressure Relief\Weight Distribution

The best way to relieve and reduce pressure is to unweight the affected area (bony prominence). The best way to evenly distribute weight is to provide a close fitting contour (such that the cushion matches the curves of the body). A variety of cushions may need to be evaluated and assessed before the most appropriate cushion is found.

Flotation cushions are designed to decrease pressure at the bony prominence or affected area by moving pressure away from the areas of highest resistance to the areas of lesser resistance. In this way, the cushion takes the shape of the body. Generally speaking, flotation cushions can offer good pressure distribution and relief. However, if the cushion is over-filled, the pressure increases because there is not enough room inside the container for it to flow away from pressure points. If the cushion is under-filled, the performance is altered because too much of the fluid filling will flow away from the high pressure areas and surrounding areas leaving the surface below the cushion to act as the support, in other words the cushion "bottoms out". (For additional information see subsection entitled Wheelchair Cushion Covers, page 17).

Foam cushions distribute weight by serving as a soft surface on which to sit. The foam cushion will "give" against the force of the weight. At sites of higher force the foam cushion will "give" more. The amount of "give" a foam cushion has depends on the firmness of the foam. Soft foam cushions, with ILD's of less than 50, are generally used when the primary function of the cushion is to provide pressure relief. Medium stiffness cushions are available for use when both pressure relief and postural

support are required. (For additional information see subsection entitled Foam Cushions under Scope of This Product Comparison, page 2).

Some foam cushions are cut to match the contour of the user's sitting surface. If the fit (or match of the body to the cushion) is not exact, the contour may increase pressure in some areas. Cushions which are not contoured to match the shape of the body can be customized when necessary by a rehabilitation professional. Optimal fit of the foam cushion may be obtained through customization which can assist in reducing pressure over the affected area(s). Customization includes cutting holes in the cushion and filling the open area with softer foam- this process relieves pressure in a specific area. When using cushions altered in this manner, attention should be given to the tissue that comes in contact with the cushion.

Alternating pressure cushions are designed to relieve pressure by continuously changing the pressure over any given area. As the fluid or air moves within the cushion, it re-directs the forces over a different part of the cushion surface, thereby altering pressure continuously in affected areas.

Hybrid cushions are a mixture of foam and flotation substance, or a composite of different foam densities. Usually the foam provides postural support and the flotation substance provides pressure relief/weight distribution. (For additional information see paragraphs detailing flotation cushions and foam cushions in this section on Pressure Relief/Weight Distribution, page 8).

Tips on Pressure Relief

There are ways to alter pressure when sitting for long periods of time. When any of us sit for an extended period, we become uncomfortable and fidget or cross and uncross our legs. All of these movements redistribute weight and thereby allow free blood circulation, keeping the tissue healthy. People at risk for pressure sores must change their position regularly so that the blood supply is not interupted for long periods. Pressure reliefs can be performed using a variety of techniques, including (but not limited to) the following:

Push-ups: Using the arm rests or seat bottom, you can push down to totally (or partially) lift your buttocks from the chair.

Leaning to the side: You can first lean all the way to the left to relieve the pressure under the right buttocks and then lean to the right to relieve the left side.

Leaning Forward: You can lean forward onto a table or onto your legs to relieve pressure from the back of your buttocks.

Reclining the wheelchair: If the above methods are insufficient, you can recline the wheelchair so that you lie back, directing the pressure onto your back rather than your buttocks. If you have extensor spasms, they may be triggered the action of reclining the wheelchair. Also, as the back reclines your back and buttocks may slide or rub against the chair. This may have a "shearing" affect on the tissue or it may abrade the skin causing a sore.

Tilting the chair and back: Instead of reclining the back separate from the seat, it is possible to move them together. As with the recline system, there are manual and power tilting systems. When the system tilts, the direction of the force of pressure is changed from the sitting surface to the back, but you maintain the same position. The likelihood of triggering extensor spasms or causing shear may be decreased.

Moving to another surface: It may be necessary for you to get out of your wheelchair and lie down, possibly on your stomach or on your side to effectively relieve the pressure against your buttocks.

Postural Support

Cushions designed to provide postural support are usually made of contoured foam or a combination of foam and other materials (i.e. hybrid cushions). The manufacturer may have additional positioning supports which can be used when necessary.

Flotation cushions offer limited postural support because the filling does not maintain its shape when there is a force against it. Because of this, gel flotation cushions generally provide better postural support than water flotation cushions. A thick, gelatinous fluid does not flow away from areas of high pressure as easily as a thin fluid (such as water). The thinner (or less viscous) the material the less stable it will be because the fluid moves so easily. If the user leans to the right, the fluid will flow to the left, reinforcing this asymmetrical posture.

Some fluid filled cushions can be customized to meet the user's need by changing the composition of the compartments. For example, the forward compartment of an air-filled cushion can be filled with more air than the rear section. This may help to give more postural support while still providing good pressure distribution under the bony areas of the buttocks.

The amount of flotation substance contained in a cushion affects its ability to offer postural support. The firmness of the cushion depends on the amount of flotation substance in the cushion. Excessive filling decreases the pressure relieving properites of the cushion.

Foam cushions can be flat or contoured. Flat foam cushions offer postural stability through the stiffness of the foam. Foam which is soft will "give" when the user sits on it and this may form a depression to hold the person in a stable position. When the person moves or shifts, the depression will move as well and tend to hold the user in the new position. Flat foam cushions may therefore promote poor posture when the user shifts out of a proper position. Firmer foams are more stable as they resist the pressure of the user less and maintain their shape. Firm cushions with ILD's greater than 60 are generally used when the primary function of the cushion is to provide postural support. Medium stiffness cushions are available for use when both pressure relief and postural support are required.

Contoured **foam cushions** typically have a space carved in where the back of the buttocks (the ischial tuberosities and the sacrum) fit. They may also have shallow channels cut for the thighs and may have a small pummel (bump) between the leg channels to keep the legs separated. This shape will match the shape of the user and hold the user in the optimal position. The contour will also distribute pressure over a larger surface and may decrease pressure at any one point.

Alternating pressure cushions are designed more for pressure relief than for postural support. The fluid moves through out the cushion making the sitting surface

less stable. The effect on the users' posture will depend on the amount of fluid that is being moved beneath them and by the speed at which the fluid moves. If the cushion is fairly thin, the movement of the fluid may not be dramatic. If the movement is slow, it may not effect the users' posture or balance and may actually go unnoticed.

Hybrid cushions are a mixture of foam and flotation substance or a combination of different density foams. Usually the fluid provides pressure relief and the foam provides postural support. (See paragraphs on foam cushions in this section on Postural Suppport, page 11).

Comfort

If you require a cushion mainly for comfort remember that a cushion that positions you with pressure relief and postural support will usually be the most comfortable. Any of the cushions included in the Product Comparison study can be used for comfort. Keep in mind that it may be unnecessary to incur higher costs for features which are not needed.

Tips on Postural Support

There are other ways to provide (or improve) postural support in a wheelchair.

Solid Seat: Solid seats should be used in most instances. Most wheelchair cushions are designed to work on a firm, stable surface and their performance is altered when they are used on a sling seat. If a cushion is placed on a sling-style wheelchair seat, the middle of the cushion will sag just as the upholstery does. If it is air, gel or water filled, the fluid will not stay evenly distributed. Solid bases range from tight upholstery to wooden inserts. Some are available already made (pre-fabricated). The purpose of the solid seat is to provide a surface on which the cushion can be most effective.

Solid seats are available in a variety of styles and materials. There are foam wedges which fit in the seat to fill the hammock resulting in a solid base for the cushion. Plywood can also be used to make a solid seat. Solid seats made of plywood are usually covered with upholstery. If a cushion is placed on top of the solid seat, foam padding is not necessary (and may actually take away the benefit of the solid seat).

Solid seats should be fixed to the chair so they cannot slip. If the solid seat is an insert, it should lay across both chair rails. You can use velcro to keep it from sliding. If a solid seat slides to one side or the other, it will cause the cushion to lay at an angle. Drop hooks can be used to fix the solid seat to the wheelchair. When hooks are used, the upholstery is usually removed from the chair and the solid seat becomes the seat bottom. Solid seats can be fixed permanently to the chair or they can be removable. The solid seat must be removed in order to fold the chair.

Back Support: Lumbar (low back) supports may be helpful to maintain good back positioning and to position the pelvis and buttocks optimally on the cushion. A solid, padded back support may also provide better postural support than the typical hammocking upholstery of most wheelchairs.

Optimal Fit: If the wheelchair and cushion are not the appropriate size, their performance will not be optimal. Remember that the armrests, footrests, back and head supports also should be used to provide postural support. Fitting techniques are described in the section titled **Choosing the Correct Size Wheelchair and Cushion.**

A Self-Assessment Guideline to Choosing a Cushion

Many options exist in choosing the most appropriate wheelchair cushion and seating system. When exploring these many options which effect functioning, ask some questions and contact your Physical or Occupational Therapist for assistance. If a therapist is not immediately available, contact a local rehabilitation facility for assistance and resources.

When asking the following questions think about "how" important that item is, not "if" it is important. If the answer to a question is a strong "yes"- search first for the cushions in the category specified. Remember, these are only suggestions and additional assistance should be sought from a clinician. Be creative in exploring all of the options available.

1. Do I have a history of pressure sores (decubitus ulcers) or am I at risk for developing pressure sores due to impaired sensation or inability to move? (See Pressure Relief and Weight Distribution Sections)

2. Do I sit in a slumped position with my shoulders rounded forward and down or do I lean to one side? (See Postural Support Section)

3. Do I experience neck or back pain? (See Postural Support Section)

4. Do I spend 20 minutes or more in one position without moving? (See Pressure Relief and Weight Distribution Sections)

5. Do I need to use my arms to keep myself balanced in my present cushion? (See Postural Support Section)

If there were no strong "yes" answers to any of the above questions, a cushion that emphasizes comfort is a primary concern. A search for a comfortable cushion is therefore indicated. Remember, a cushion which provides good postural support and positioning accompanied by even weight distribution, will be the most comfortable in most cases.

Choosing the Correct Size Wheelchair and Cushion

Width

Wheelchair

Before selecting a cushion, it is important to measure the size of the wheelchair. The optimal width of the wheelchair seat should be slightly wider than the widest point on the hips and thighs. If the chair is too narrow, there will be pressure against the end of the thigh bone (the trochanter of the femur). Also, if the seat is too narrow, the wheels may rub clothing and legs, creating sores. If the seat is too wide, it will be more difficult to reach the wheels to push the chair and this may cause pain and will most likely cause slowness. A wheelchair which is too wide may allow too much room for the user with poor balance or weak trunk muscles to lean from side to side. The width of the wheelchair seat should be appropriate for the user's size. If bulky clothing (ie. jackets or coats) is frequently worn, make sure there is enough room on the seat for the extra thickness. Otherwise the bulk of the clothing will inhibit easy mobility.

Cushion

The wheelchair cushion should be the same width as the wheelchair seat. If the cushion is wider than the wheelchair seat, it may be more difficult to take the arm rests off or put them back on. Wide cushions may get caught in the wheels, wearing out the cushion and making pushing the chair more difficult.

If the cushion is too narrow, legs will not have sufficient support and they may spread apart. There will also be increased pressure on the legs and buttocks, especially at the edges of the cushion. If the cushion is not the appropriate size, the contour will not be the appropriate size for the appropriate location. If the cushion is contoured inappropriately, it may exaggerate poor posture and it may cause increased pressure at bony prominences.

Depth (also referred to as length)

Wheelchair

The wheelchair seat (from the back of the seat to the front edge of the chair) must be long enough to support the appropriate length cushion. It should not be so long that it rubs against the back of the knees or against the calves.

For solid seat users, the seat should be the appropriate length to fit the cushion. A solid seat insert can be used and allowed to extend over the sling seat by one to two inches.

Cushion

Ideally, weight should be evenly distributed between the thighs and the buttocks. The cushion support should begin about 1" to 2" back from behind the knee (at the popliteal fossa). If the cushion is too long, there may be increased pressure behind the knee and this pressure may disturb blood circulation to and from the legs. If the cushion is too short, the pressure of sitting

will not be spread over a large enough surface and this increased pressure at the upper thigh and buttocks may cause discomfort and even pressure sores. If left and right legs are not the same length, it may be possible to cut one side of the cushion so that the support is optimal on each side.

Recommendations made here for cushion length are generalizations and specific individual needs may be different. There are a few other things to remember when thinking about the length of the cushion. Some people move their chair by using their feet. This will be more difficult to do if the cushion support comes out further toward the knees. Lowering the chair seat (making or buying a solid seat which hangs from hooks on the seat rails) will make it easier to use the feet to move the chair. Also, it is more difficult to rise to standing when the leg is supported to the knee. If the cushion is long, the user may need to slide forward prior to standing or moving off the cushion.

Height (also referred to as depth)

Cushion

The thickness of the cushion is sometimes open to preference and need (e.g., when choosing a foam cushion). There are a few things to consider when determining the cushion thickness. Most importantly, the cushion must be thick enough to prevent "bottoming out". Bottoming out refers to pushing all the way through the cushion so that there is no longer any padding between the skin and the wheelchair seat. Sometimes if the foam is too soft or if it is not thick enough, it will bottom out. A sharp pressure may be felt under the buttocks (especially at the ischial tuberosities) if the cushion bottoms out.

If buttocks sensation is impaired, the user or someone else should check the cushion for bottoming out. Place the hand, palm up, on the wheelchair between the seat and the cushion right at the spot where the sharp bones touch the cushion. Sit on the cushion. If the cushion is bottoming out a sharp pressure will be felt in the palm. If an even pressure is felt, the cushion is probably thick enough.

It is also important to be aware that changing cushion height will alter the position of the body relative to the wheelchair seat, wheels, and other components. Consider the following: Can the wheels still be reached to propel the chair? Can the brakes or the wheel locks be managed? Can the floor still be reached for standing or to propel the chair with the feet? Can transfers into and out of the chair still be accomplished if the height of the cushion is different? If the cushion is higher, will knees and legs fit under tables and desks? Will the head height interfere with accessing a van on a lift or ramp. All of these situations must be considered when selecting a wheelchair cushion.

Additional Cushion Considerations

Wheelchair Cushion Covers

Many wheelchair cushions come with a separate slip-cover. This slip-cover serves a number of purposes. A cover helps the cushion stay clean and maintain its shape. A cover protects the cushion from the environment. Depending on the type of material used, a cushion cover may also affect the performance of the cushion.

A cushion cover should be easy to clean and be dry when in use. Cushion covers may come as waterproof, water repellent, or water resistant. A waterproof cover should not allow any liquid to come in contact with the cushion. A water repellent cover will bead the liquid and allow it to flow off the cushion (although pressure between the buttocks and cushion cover may force liquid through the cover). A water resistant cover will usually allow for limited repulsion of liquid and it may eventually become wet. If continence or spilling is an issue, a waterproof cover will help to protect the cushion.

Cushion covers help to contain the cushion. For example, an air-filled cushion needs a cover to maintain its shape. If it does not have a cover, the air pushing away from the bony prominences will fill the surrounding bladders and may force the air bladders out into the front or rear of the chair, no longer providing contact to the user.

The material of the cover may also affect the use of the cushion. A slick material may allow the user to slide more easily for transfers and repositioning or it may cause a less mobile person to slide out of position. A less slippery material may help to maintain the user's position on the cushion but may make re-positioning more difficult.

Cushion covers must be the appropriate size for the cushion. The cover should be just large enough to contour to the shape of the cushion when it is in use. If the cover is too small, it will perform like a hammock and suspend the user over the cushion surface. This will increase pressure at the contact sites. If the cover is too big the material may wrinkle or fold causing pressure areas to develop.

Caring for the Wheelchair Cushion

There are a few things about caring for the cushion to consider when deciding which cushion is best. A big question may be: Does the cushion have a cover? If it does, can the cover be machine washed? If it has a cover, consider buying an extra one so that while one is being washed (or dried) the other can be used.

Even if the cushion has a cover, the cover may not be made of material which stops liquid from seeping through. If this is a consideration with you, check to make sure that the cushion itself is washable or wipe-able. Closed cell foams can be wiped clean as can cushions with plastic coatings. All cushions should be checked regularly to ensure that they are in good condition. Foam cushions which have changed shaped from

repeated pressure and from wear, should be replaced.

The gel in flotation and hybrid cushions should be kneaded to keep the particles well mixed and evenly distributed. The air or water may need to be replaced if any is lost through slow leakage. The plastic container surrounding flotation cushions should be checked for holes or tears. The container should be mended and replaced as needed.

Transportability and Use

If you transport the cushion (such as into a car), think about the weight of the cushion. Fluid filled cushions may be heavy and may be difficult to manage. Some cushions have a handle, making them easier for some people to manage. If the cushion is contoured or sized (rectangle not square), be sure the cushion is marked, or mark it yourself so that the front of the cushion **always** goes at the front of the seat. If the cushion is used while mal-aligned, even for a short period of time, skin integrity and comfort will be compromised.

Reported Problems

Wheelchair cushions are part of the total seating system that supports and positions the user. A wheelchair cushion can contribute to poor positioning and instability, but these problems more typically result from incorrect wheelchair seat depth, back height, or placement of armrests and footrests. Poor positioning can cause discomfort, lead to contractures (abnormal tightening of the muscles and other soft tissue around joints), skeletal deformities (e.g., scoliosis), impaired function, impaired balance, and abnormal muscle tone reactions.

Because of their design or their physical properties, some wheelchair cushions can impede the user's ability to transfer to or from the wheelchair. Cushions that are compartmental with separate sections next to each other can impede transfer because the user, in attempting to slide off the cushion, has to overcome more friction. Wheelchair cushions that are slippery or unstable do not provide a stable base from which to transfer and can allow the user to slide too easily. A wheelchair cushion that is the incorrect shape, size, or thickness can increase the risk of a pressure sore.

Wheelchair cushions that are more than 3 inches thick tend to place the user too high in the wheelchair unless the seat is lowered to compensate for the height of the cushion. However, changing the wheelchair seat height is not alway feasible. A cushion that is too high encourages a slumped posture and makes wheelchair propulsion less efficient, because the user's arms are too far away from the wheels. It also makes the back support lower and less effective.

Air cushions must be filled to the proper level if they are to be effective in reducing pressure. In addition, loss of air pressure in an air flotation cushion due to a puncture, or in an alternating pressure system due to a puncture or a device

malfunction, may go unnoticed by the user with impaired pressure sensation, resulting in high pressure against the skin over long periods of time (e.g., several hours). Some systems have warning devices that alert the user if low pressure or low battery occurs. Overfilling an air cushion can make the cushion too hard, causing increased pressure, and can cause excessive wear on the cushion.

Foam cushions that have flattened and need to be replaced (typically after 6 to 8 months of use) do not effectively reduce pressure and place the user at risk for developing or worsening a pressure sore.

Advantages & Disadvantages of Foam Cushions

Foam cushions- Although readily available and inexpensive, foam cushions usually do not last as long as other types of cushions because they eventually flatten and become less effective in relieving pressure. The average lifespan of foam cushions is 6 months (Garber 1985), but high-density foams usually have a longer product life than low-density foams. However, even the most durable foam cushions typically must be replaced within one year (Ferguson-Pell 1980). In addition, some foam cushions deteriorate when exposed to sunlight.

Because foam cushions are generally very permeable, or breathable, they allow air circulation and keep extra moisture from forming against the skin. This helps to decrease the probability that a pressure sore will form. Because they are lightweight, they are easily moved from place to place. Foam cushions are usually not washable (although their covers are), which can be a disadvantage for the incontinent user. Some foam cushions can be made washable by treating them with silicone, but this process changes the surface stiffness of the foam. Closed-cell foam cushions can be wiped clean; waterproof covers are recommended for open-cell foam wheelchair cushions. Some foam cushions can be sterilized, most often by gas sterilization.

Foam cushions are sensitive to temperature, becoming softer at higher temperatures, harder at lower temperatures. Cost: $10 to $150 depending on type of foam and cover.

Advantages & Disadvantage of Gel Flotation Cushions

Gel cushions- Easy to clean, gel cushions are more expensive than foam cushions. And, since gel cushions are heavier than foam or air cushions, individuals with limited strength may find them more difficult to lift and handle. Gel cushions are good conductors of heat, so the surface of the buttocks is cooled whevever the cushion is cooler than body temperature. This is thought to help prevent pressure sores because increases in body temperature have been linked to pressure sore formation (Fischer et al. 1978). However, gel cushions are not very permeable, so they can cause extra moisture to form against the skin. The viscosity, or internal resistance to flow, of gel cushions may change with changes in temperature; they may become harder and thicker in colder temperatures and softer and more fluid in warmer temperatures. Some gel cushions contain a substance that inhibits this tendency, in order to ensure greater consistency of the gel.

Gel cushions are susceptible to puncture, and some manufacturers provide a repair kit with the cushion. Gel cushions are less stable than foam cushions because they contain material that displaces easily. Unless they have seams or internal dividers that keep the gel in place, the volume of the gel can shift and create uneven pressure distribution. By incorporating several compartments or partitions that contain the gel, these cushions can distribute pressure more evenly over the surface area and improve their stability. In general, gel cushions provide better shock absorption than pressure relief. Gel cushions typically are both washable and gas sterilizable (some models can be steam sterilized Cost: $40 to $600 (gel cushions that are filled by the user or caregiver are less expensive).

Advantages & Disadvantages of Other Flotation Cushions

Air- and water-filled cushions- These flotation cushions are washable but are subject to puncture. Some air cushions must be replaced when they become punctured, others can be repaired; some models include repair kits. Air cushions are usually inflated by the user or rehabilitation professional instead of being sealed by the manufacturer like water or gel cushions. They are are usually lightweight. Water cushions are typically heavier than air or foam cushions but lighter than gel cushions. Because air is more likely to change its volume in response to changes in temperature, these cushions are more prone to leak than gel or water. In addition, air cushions can easily be overfilled or underfilled; either can cause a potentially harmful increase in pressure. Cost: $10 to $300.

Dry polymer cushions- These cushions are made of a soft synthetic rubber (**Akton**) that has the mechanical properties of natural rubber (e.g.,toughness, resistance to wear, resilience). Because they are heavier than foam or air cushions, they are more difficult to lift and handle by persons with limited strength. They are washable and gas sterilizable. They do not leak if punctured and are affected very little by changes in temperature. Cost: $85 to $248.

Advantages & Disadvantages of Alternating Pressure Cushions

Alternating pressure wheelchair cushions- These cushions rely on an external power source, either line powered, battery powered, or both, to provide alternating pressure. If line powered, the user's mobility is limited to that allowed by the power cord. Battery-powered models require recharging for approximately 12 hr, and, once charged, the charge may not last for an entire day. However, some batteries can operate for 30 hours before recharging is necessary. In addition, if the alternating pressure cushion operates from an electric wheelchair battery, it does not require charging. Cost: $150 to $600.

Advantages & Disadvantages of Hybrid Cushions

Hybrid wheelchair cushions- These are heavier than foam or air cushions but lighter than gel, dry polymer, or alternating pressure cushions. Because of their structure, which combines the stability of foam with the pressure relief of gels or dry polymer, they provide the user with improved pelvic stability as well as good pressure distribution. Cost: $85 to $350.

How to Use the Comparison Charts

The comparison charts provide basic information about rehabilitation products but should not be used to make the final decision about which products are best for a person. These charts do not reflect differences in the quality of the cushions.

Explanation of Chart Terminology

Type: Specifies foam, flotation, or alternating pressure; may include subtypes (e.g. hybrid flotation).

Material: Types of material from which the wheelchair cushion and cover are made.

Modular inserts: Additional components of the wheelchair cushion that enhance stability or support or help position users with spasticity or deformity.

Waterproof: Whether or not the manufacturer describes the cushion as waterproof.

Washable: Whether or not the manufacturer describes the cushion/cover as washable.

Sterilizable: Cushion can be sterilized by steam or gas to remove sources of contamination.

Fire Retardant: Made from material that slows or halts the spread of fire. Cushion and cover are listed separately because each may or may not be fire retardant.

Maximum Weight Capacity, lb: The maximum user weight the cushion can accommodate without compromising support or construction.

Size, W x D x H, in: Dimensions of the wheelchair cushion (See Figure).

Weight, lb: The specified weight of the cushion by the manufacturer.

Price: Retail price.

Warranty: Indicates whether the wheelchair cushion has a warranty and the length of the warranty.

Special Features: Any unique features not previously listed.

Indentation Load Deflection (ILD): Degree of compressibility or stiffness of a foam cushion. The values listed in the chart are the weights required to compress the foam 25%, or to 75% of its original thickness. When a range of weights is specified the cushion is available with different ILD's.

FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	ACTIVEAID	ALLMAN PRODUCTS	ALLMAN PRODUCTS	ALLMAN PRODUCTS
MODEL	50B HORSESHOE	WHEELCHAIR FLEECE SEAT CUSHION 0402	PREMIER LATEX WHEELCHAIR CUSHION	COCCYX SEAT CUSHION
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density polyurethane	Low-density foam	Low-density foam	Low-density foam
Cover	Vinyl (Staph-chek)	Cotton fleece	Velveteen	Velveteen
ILD, lb	70	Not specified	Not specified	Not specified
MODULAR INSERTS	Yes	No	No	No
Type	Plywood solid seat			
Method of attachment	Inserts envelope-style			
WATERPROOF (CUSHION)	Yes	No	No	No
WASHABLE				
Cushion	No	No	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	No	No	No	No
FIRE RETARDANT				
Cushion	Yes	No	No	No
Cover	Yes	No	No	No
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	No limit
SIZE, W x D x H, in	17 x 17 x 3	16 x 18 x 4	16 x 18 x 3	16 x 18 x 3
WEIGHT, lb	2	Not specified	Not specified	Not specified
PRICE	$48	$7.50	$17.95	$9.75
WARRANTY	No	Not specified	Not specified	Not specified
SPECIAL FEATURES	Cut-out design to relieve pressure on coccyx; many sizes and thicknesses available.			

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER MODEL	AMERICAN HEALTH SYSTEMS ULTRAFORM STANDARD FOAM CUSHION	AMERICAN HEALTH SYSTEMS ULTRAFORM LOW-PROFILE CUSHION	AMERICAN HEALTH SYSTEMS ULTRAFORM WEDGE CUSHION	ARNOLD HEALTH EQUIPMENT SLOTTED FACE KUSHION
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density open-cell polyurethane	High-density open-cell ULTRACEL polyurethane	High-density open-cell ULTRACEL polyurethane	Low-density foam
Cover	Rip-stop nylon or polyurethane	Rip-stop nylon or polyurethane	Rip-stop nylon or polyurethane	Soft vinyl
ILD, lb	42	50	50	Not specified
MODULAR INSERTS				No
Type	Contoured abduction	Contoured abduction	No	
Method of attachment	Inserts envelope-style	Inserts envelope-style		
WATERPROOF (CUSHION)	Yes	Yes	Yes	No
WASHABLE				
Cushion	Yes, spot clean only	Yes, spot clean only	Yes, spot clean only	No
Cover	Yes, wipe clean with mild disinfectant	Yes, wipe clean with mild disinfectant	Yes, wipe with mild disinfectant	Yes
STERILIZABLE	Yes, gas (cushion only)	Yes, gas (cushion only)	Yes, gas (cushion only)	No
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	No
Cover	Yes	Yes	Yes	No
MAXIMUM WEIGHT CAPACITY, lb	250	250	250	No limit
SIZE, W x D x H, in	16 x 18 x 4	16 x 18 x 2.5	16 x 18 x 2-4	15 x 18 x 3.5
WEIGHT, lb	1	1	1	Not specified
PRICE	$19-39	$19-39	$19-39	$29.95 delivered
WARRANTY	No	No	No	90 days
SPECIAL FEATURES	Cellular geometric surface to allow bony areas to be cradled with low shearing forces; spacing between cells promotes air flow.	Cellular geometric surface to allow bony areas to be cradled with low shearing forces; spacing between cells promotes air flow.	Wedge design to promote proper seating position for restraint-free users.	Slotted to relieve pressure on sacrum; reversible; choice of 4 colors.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	ARNOLD HEALTH EQUIPMENT	BIOTECH LTD	BIOTECH LTD	BIOTECH LTD
MODEL	VENTILATED SEAT KUSHION	COMFORT PLUS 100	COMFORT PLUS 200	COMFORT PRO 600
TYPE	Foam	Foam	Foam	Hybrid foam
MATERIAL				
Cushion	Low-density foam	Medium-density urethane foam	High-density urethane foam	High-density laminated urethane foam
Cover	Soft vinyl	Polyester double knit	Polyester double knit	Polyester lycra knit
ILD, lb	Not specified	Not specified	Not specified	Not specified
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	No	No	No	Yes
WASHABLE				
Cushion	No	Yes (by hand)	Yes (by hand)	Yes (by hand)
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	No	Yes, gas	Yes, gas	Yes, gas
FIRE RETARDANT				
Cushion	No	Yes	Yes*	Yes
Cover	No	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	No limit	170	220	230
SIZE, W x D x H, in	15 x 19 x 2.5	18 x 16 x 3	18 x 16 x 3	17 x 17 x 3
WEIGHT, lb	Not specified	1.8	1.9	3
PRICE	$29.95 delivered	$69.95	$69.95	$250
WARRANTY	90 days	2 years	2 years	2 years
SPECIAL FEATURES	Slotted to relieve pressure on sacrum; choice of 3 colors; perforated for ventilation.	Wrist strap; wrap-around zipper.	Wrist strap; wrap-around zipper.	Velcro attachment to wheelchair.

Colons separate data on similar models of a manufacturer's device.
* Cushion will be fire-retardant as of September 1990.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	BODYLINE COMFORT SYSTEMS	BRODA	CANYON PRODUCTS	CANYON PRODUCTS
MODEL	SAT-A-LITE	PMS SEAT PAD	HD	HIGH DENSITY LAMINATE
TYPE	Foam	Foam	Foam	Hybrid foam
MATERIAL				
Cushion	High-density urethane foam	High-density foam	High-density open cell polyurethane foam	High-density and extra high-density laminated open cell polyurethane foam
Cover	Loren velour polyester/nylon	Cotton terrycloth	Polyester	Polyester
ILD, lb	25	Not specified	70	70-150
MODULAR INSERTS	No	No	Optional	Optional
Type			Solid insert	Solid insert
Method of attachment			Inserts envelope-style	Inserts envelope-style
WATERPROOF (CUSHION)	Not specified	No	No	No
WASHABLE				
Cushion	Yes	No	No	No
Cover	Yes	Yes		Yes
STERILIZABLE	No	No	Yes, gas	Yes, gas
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Not specified	No	No
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	250	300
SIZE, W x D x H, in	14.5 x 17.5 x 2.5	16 x 19 x 5/8	18 x 16 x 3	18 x 16 x 3
WEIGHT, lb	1.25	1.0	3	4.5
PRICE	$29.95	$27	$69	$140
WARRANTY	1 year	1 year	No	No
SPECIAL FEATURES	Contoured wedge seat cushion designed to support the shape of the buttocks; can be used for almost any hard, flat seat; made of high-resilience foam.	Available in 2 colors.	Special sizes, cutouts, and other adaptations available.	Special sizes, cutouts, and other adaptations available.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	CANYON PRODUCTS	CANYON PRODUCTS	COMMANDER-OMNI	COMMANDER-OMNI
MODEL	SUNMATE	PUDGEE	LATEX FOAM CUSHIONS	URETHANE FOAM CUSHIONS
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density open-cell viscoelastic foam	Extra high-density open-cell viscoelastic gel-foam	Low-density foam	Low-density foam
Cover	Polyester	Polyester	Cotton blend or vinyl	Cotton blend or vinyl
ILD, lb	Not specified	Not specified	20	25
MODULAR INSERTS	Optional	Optional	No	No
Type	Solid insert	Solid insert		
Method of attachment	Inserts envelope-style	Inserts envelope-style		
WATERPROOF (CUSHION)	No	No	No	No
WASHABLE				
Cushion	No	No	No	No
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, steam	Not specified	No
FIRE RETARDANT				
Cushion	No	No	Not specified	No
Cover	No	No	Not specified	No
MAXIMUM WEIGHT CAPACITY, lb	200	200	No limit	No limit
SIZE, W x D x H, in	18 x 16 x 2	18 x 16 x 2	16 x 16-18 x 2-4	16 x 18 x 2-4
WEIGHT, lb	4	6	Not specified	Not specified
PRICE	$149	$190	Not specified	Not specified
WARRANTY	No	No		No
SPECIAL FEATURES	Special sizes, cutouts, and other adaptations available.	Special sizes, cutouts, and other adaptations available.		

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	COMMANDER-OMNI	COMMANDER-OMNI	COMMANDER-OMNI	CONVO CORPORATION
MODEL	CUSHION W CUTOUT	CONVOLUTED CUSHION	WHEELCHAIR WEDGE	SEAT CUSHION AND COVER 1619
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	Low-density foam	Low-density, closed-cell convoluted foam	Low-density foam	Low-density, open-cell convoluted foam
Cover	Cotton blend	Cotton blend	Vinyl or cotton blend	Polyester or cotton
ILD, lb	25	Not specified	20	30 (+/- 3)
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	No	No	No	No
WASHABLE				
Cushion	No	No	No	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	No	No	No	No
FIRE RETARDANT				
Cushion	No	Yes	No	Yes
Cover	No	No	No	No
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	Not specified
SIZE, W x D x H, in	16 x 18 x 3	16 x 18 x 2.5 or 3.5 18 x 36 x 2.5 or 3.5	16 x 18 x 1-4	16 x 18 x 3
WEIGHT, lb	Not specified	Not specified	Not specified	3
PRICE	Not specified	Not specified	Not specified	$4.85-8.85
WARRANTY	No	No	No	No
SPECIAL FEATURES				Nontoxic, nonallergenic; does not flatten with use.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	CONVO CORPORATION	DURO-MED INDUSTRIES	DURO-MED INDUSTRIES	DURO-MED INDUSTRIES
MODEL	TRIPLE DENSITY SOLID FOAM	DURO-MED WHEELCHAIR CUSHION	DURO-SAFE FIRE-RETARDANT CUSHION	WHEELCHAIR CARRY-ALL CUSHION
TYPE	Hybrid foam	Foam	Foam	Foam
MATERIAL				
Cushion	Low-, medium-, and high-density foam	Low-density foam	Low-density foam	Low-density foam
Cover	Polyester, cotton	Cotton	Cotton	Cotton denim
ILD, lb	15, 30, 30 (+/-3)	Not specified	Not specified	Not specified
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	No	No	No	No
WASHABLE				
Cushion	Yes	No	No	No
Cover	Yes	No	No	Yes
STERILIZABLE	No	No	No	Not specified
FIRE RETARDANT				
Cushion	Yes	No	Yes	No
Cover	No	No	No	No
MAXIMUM WEIGHT CAPACITY, lb	Not specified	No limit	No limit	No limit
SIZE, W x D x H, in	16 x 17 x 3	18 x 16 x 2, 16 x 17 x 3	18 x 16 x 2, 16 x 17 x 3	16 x 16 x 2
WEIGHT, lb	3	Not specified		Not specified
PRICE	$7.00-8.00	$11.90 fabric cover $19.80 vinyl cover	$13.90	$27
WARRANTY	No	No	No	No
SPECIAL FEATURES	Triple-density laminated foam to provide comfort without bottoming out.		Antibacterial and antistatic.	Has carryall attachment with several compartments that can face front or back of the wheelchair.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	DURO-MED INDUSTRIES	DURO-MED INDUSTRIES	DYNAMIC SYSTEMS	DYNAMIC SYSTEMS
MODEL	POSTURE RIGHT SEAT CUSHION	COCCYX SEAT CUSHION	LAMINAR CUSHION	PUDGEE CUSHION
TYPE	Foam	Foam	Hybrid foam	Foam
MATERIAL				
Cushion	Medium-density foam	Medium-density foam	High-density, open-cell foam	High-density, open-cell gel foam
Cover	Vinyl	Dacron/cotton	Cotton/polyester	Cotton/polyester
ILD, lb	Not specified	Not specified	Not specified	1-2
MODULAR INSERTS	No	Yes	No	No
Type		Masonite solid seat		
Method of attachment		Inserts envelope-style		
WATERPROOF (CUSHION)	Yes	No	Optional silicone waterproofing kit	Optional silicone waterproofing kit
WASHABLE				
Cushion	No	No	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Not specified	Not specified	Not specified	Not specified
FIRE RETARDANT				
Cushion	Yes	No	Optional*	Optional*
Cover	Yes	Yes	No	No
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	No limit
SIZE, W x D x H, in	16 x 16 x 4 16 x 18 x 4	17.5 x 16 x 3	16 x 18 x 2.5; custom sizes and designs available	16 x 18 x 1; custom sizes and designs available
WEIGHT, lb	Not specified	Not specified	6.5	5
PRICE	$39	$17.90, $25 w insert	$46	$31
WARRANTY	No	No	6 months	6 months
SPECIAL FEATURES	Wedge shape to promote better posture, prevent slipping forward, and prevent sagging.	Rear cut-out design to relieve pressure on coccyx.		

Colons separate data on similar models of a manufacturer's device.
* Can be chemically treated to make the cushion fire-retardant.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	DYNAMIC SYSTEMS	FREEDOM DESIGNS	FREEDOM DESIGNS	FREEDOM DESIGNS
MODEL	SUN-MATE CUSHION	VELFLOAT	TUFLOAT	DURAFLOAT II
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density, open-cell modified urethane foam	Not specified	Not specified	Not specified
Cover	Cotton/polyester	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool
ILD, lb	20-100	40-50	90	149
MODULAR INSERTS	No	Optional	Optional	Optional
Type		Solid base (please specify material)	Solid base	Solid base
Method of attachment		Inserts envelope-style	Inserts envelope-style	Inserts envelope-style
WATERPROOF (CUSHION)	Optional silicone waterproofing kit	Not specified	Not specified	Not specified
WASHABLE				
Cushion	Yes	Not specified	Not specified	Not specified
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Not specified	Not specified	Not specified	Not specified
FIRE RETARDANT				
Cushion	Optional*	Not specified	Not specified	Not specified
Cover	No	Not specified	Not specified	Not specified
MAXIMUM WEIGHT CAPACITY, lb	No limit	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16 x 18 x 2; custom sizes and designs available	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4
WEIGHT, lb	2	Not specified	Not specified	Not specified
PRICE	$18-24	$40.15-52.25	$120.45-149.60	$129.80-253.55
WARRANTY	6 months	Not specified	Not specified	Not specified
SPECIAL FEATURES		Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, nonskid base optional.

Colons separate data on similar models of a manufacturer's device.
* Can be chemically treated to make the cushion fire-retardant.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	FREEDOM DESIGNS	FREEDOM DESIGNS	FREEDOM DESIGNS	FREEDOM DESIGNS
MODEL	DYNA-GEL	HIGH-DENSITY	DYNA-FLO	BIFOAT
TYPE	Foam	Foam	Hybrid foam	Hybrid foam
MATERIAL				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool
ILD, lb	Not specified	70	Not specified	Not specified
MODULAR INSERTS	Optional	Optional	Optional	Optional
Type	Solid base	Solid base	Solid base	Solid base
Method of attachment	Inserts envelope-style	Inserts envelope-style	Inserts envelope-style	Inserts envelope-style
WATERPROOF (CUSHION)	Not specified	Not specified	Not specified	Not specified
WASHABLE				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Not specified	Not specified	Not specified	Not specified
FIRE RETARDANT				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Not specified	Not specified	Not specified	Not specified
MAXIMUM WEIGHT CAPACITY, lb	Not specified	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4
WEIGHT, lb	Not specified	Not specified	Not specified	Not specified
PRICE	$196.35-365.20	$90.20-99.00	$133.10-247.50	$136.95-176.55
WARRANTY	Not specified	Not specified	Not specified	Not specified
SPECIAL FEATURES	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	FREEDOM DESIGNS	FREEDOM DESIGNS	FREEDOM DESIGNS	FREEDOM DESIGNS
MODEL	HI-D LAMINATE	FORMFLOAT II	34 LAMINATE	PIB 310
TYPE	Hybrid foam	Hybrid foam	Hybrid foam	Hybrid foam
MATERIAL				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool
ILD, lb	Not specified	Not specified	Not specified	Not specified
MODULAR INSERTS	Optional	Optional	Optional	Optional
Type	Solid base	Solid base	Solid base	Solid base
Method of attachment	Inserts envelope-style	Inserts envelope-style	Inserts envelope-style	Inserts envelope-style
WATERPROOF (CUSHION)	Not specified	Not specified	Not specified	Not specified
WASHABLE				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Not specified	Not specified	Not specified	Not specified
FIRE RETARDANT				
Cushion	Not specified	Not specified	Not specified	Not specified
Cover	Not specified	Not specified	Not specified	Not specified
MAXIMUM WEIGHT CAPACITY, lb	Not specified	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 2, 3, or 4	16, 18 x 16 x 3, 4
WEIGHT, lb	Not specified	Not specified	Not specified	Not specified
PRICE	$137.50-166.55	$89.65-188.10	$58.30-106.15	$164.45-278.85
WARRANTY	Not specified	Not specified	Not specified	Not specified
SPECIAL FEATURES	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	FREEDOM DESIGNS	FREEDOM DESIGNS	GOLDEN FLEECE INTERNATIONAL	GOLDEN FLEECE INTERNATIONAL
MODEL	PIB 410	PIB 510	ABDUCTION SEAT CUSHION	FABRIC SEAT CUSHION
TYPE	Hybrid foam	Hybrid foam	Foam	Foam
MATERIAL				
Cushion	Not specified	Not specified	High-density open-cell urethane foam	Open-cell urethane foam
Cover	Polyester, Naugahyde, or synthetic lambswool	Polyester, Naugahyde, or synthetic lambswool	Kodel polyester	Kodel polyester, gabardine
ILD, lb	Not specified	Not specified	Not specified	Not specified
MODULAR INSERTS	Optional	Optional	No	No
Type	Solid base	Solid base		
Method of attachment	Inserts envelope-style	Inserts envelope-style		
WATERPROOF (CUSHION)	Not specified	Not specified	No	No
WASHABLE				
Cushion	Not specified	Not specified	No	No
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Not specified	Not specified	Yes, gas	Yes, gas
FIRE RETARDANT				
Cushion	Not specified	Not specified	No	No
Cover	Not specified	Not specified	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	Not specified	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16, 18 x 16 x 3, 4	16, 18 x 16 x 3, 4	18 x 18 x 4	18 x 18 x 3.5
WEIGHT, lb	Not specified	Not specified	2	2
PRICE	$198-284.90	$233.20-339.90	$34.95	$12.95
WARRANTY	Not specified	Not specified	60-90 days	60-90 days
SPECIAL FEATURES	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Special sizes, cutouts, and other adaptations available; ties, tabs with snaps, incontinent liner, and nonskid base optional.	Patented cavities for ischial tuberosities and cone wedge for abduction.	

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	GOLDEN FLEECE INTERNATIONAL	GRAHAM-FIELD INC	JAY MEDICAL LTD	JAY MEDICAL LTD
MODEL	FULL KODEL SEAT CUSHION	FOAM CUSHION 35-5626: 35-5626-1	COMBI CUSHION 200N: 201N:202N:205N	COMBI CUSHION 206N: 210N
TYPE	Foam	Foam	Hybrid foam	Hybrid foam
MATERIAL				
Cushion	High-density urethane foam	High-density foam	High- and low-density urethane foam	High- and low-density urethane foam
Cover	Kodel polyester	Polyester: Sheepskin	Polyester	Polyester
ILD, lb	Not specified	Not specified	50/20 firm/soft base	50/20 firm/soft base
MODULAR INSERTS	No	No	Yes	Yes
Type			Solid seat insert, lumbar support	Solid seat insert, lumbar support
Method of attachment			Inserts envelope-style	Inserts envelope-style
WATERPROOF (CUSHION)	No	No	Yes	Yes
WASHABLE				
Cushion	No	No	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, gas	No	No
FIRE RETARDANT				
Cushion	No	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	Not specified	250	No limit	No limit
SIZE, W x D x H, in	18 x 18 x 4	16 x 18 x 3	18 x 16 x 2:18 x 18 x 2:20 x 18 x 2:15.5 x 16 x 2	15.5 x 18 x 2:14 x 14 x 2
WEIGHT, lb	2	Less than 2	1.6:2:2.4:1.4	1.9:1.1
PRICE	$14.95	$17.95:$22.50	$90 w/lumbar support $80 w/o lumb support	$90 w/lumbar support $80 w/o lumb support
WARRANTY	60-90 days	No	5 year	5 year
SPECIAL FEATURES			Contoured cushion to promote better positioning, decrease tendency to slide out of the chair; nonskid cover to keep cushion in place.	Contoured cushion to promote better positioning, descrease tendency to slide out of the chair; nonskid cover to keep cushion in place.

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	KEES GOEBEL	KENDALL–FUTURO	KENDALL–FUTURO	MASON MEDICAL*
MODEL	T–36:T–38:T–41	2816 WHEELCHAIR CUSHION	2818 WHEELCHAIR SUPPORT CUSHION	
TYPE	Foam	Foam	Hybrid foam	
MATERIAL				
Cushion	Low–density:Medium–density:High–density closed–cell foam	Low–density foam	High–, medium–, and low–density foams	
Cover	Polyester double knit	Cotton/polyester	Cotton/polyester	
ILD, lb	20:35:50	31	34–60	
MODULAR INSERTS	No	No	No	
Type				
Method of attachment				
WATERPROOF (CUSHION)	No	No	Yes	
WASHABLE				
Cushion	No	No	Yes (by hand)	
Cover	Yes	Yes	Yes	
STERILIZABLE	Yes, gas	No	No	
FIRE RETARDANT				
Cushion	Yes**	Yes	Yes	
Cover	Yes	Yes	Yes	
MAXIMUM WEIGHT CAPACITY, lb	300	260	300	
SIZE, W x D x H, in	16 x 16, 16 x 18 x 2, 3, 4 (standard)	16 x 18 x 2	15 x 17 x 2.75	
WEIGHT, lb	2–4	0.5	1.6	
PRICE	$42–79	$9.95	$39.95	
WARRANTY	90 days			
SPECIAL FEATURES	Special sizes available.	Lightweight; removable cover.	Lightweight; removable cover; pods (raised areas) of varying heights to provide stability and reduce tendency to slump; front contour to assure leg separation and relieve pressure on ischials and coccyx.	

Colons separate data on similar models of a manufacturer's device.
* Manufacturer did not provide specifications in time for publication.
** Meets Federal Aviation Administration FAR 25.853b and CAL 117 fire retardancy standards.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	MED FOAM	MED FOAM	MED FOAM	PIN DOT
MODEL	FIRM WHEELCHAIR CUSHION	MEDIUM WHEELCHAIR CUSHION	EXTRA FIRM WHEELCHAIR CUSHION	ENDOFLEX 18":16" SEAT CUSHION
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density polyurethane	High-density polyurethane	High-density polyurethane	Medium-density foam
Cover	Stretch knit, optional vinyl staph-chek	Stretch knit, optional vinyl staph-chek	Stretch knit, optional vinyl staph-chek	Vinyl
ILD, lb	Not specified	Not specified	Not specified	Not specified
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	No (with knit cover) Yes (vinyl cover)	No (with knit cover) Yes (vinyl cover)	No (with knit cover) Yes (vinyl cover)	Yes
WASHABLE				
Cushion	No	No	No	Yes
Cover	Yes*	Yes*	Yes*	Yes
STERILIZABLE	No	No	No	Yes, gas
FIRE RETARDANT				
Cushion	Not specified	Not specified	Not specified	Yes
Cover	Not specified	Not specified	Not specified	Yes
MAXIMUM WEIGHT CAPACITY, lb	80	140 (2"), 200 (3")	300	No limit
SIZE, W x D x H, in	16 x 18 x 1	16 x 18 x 2, 3	16 x 18 x 4	18 x 17 x not specified:16 x 17 x not specified
WEIGHT, lb	Not specified	Not specified	Not specified	Not specified
PRICE	Not specified	Not specified	Not specified	$325 seat cushion, $395 back cushion**
WARRANTY	No	No	No	60 days
SPECIAL FEATURES	Special sizes available.	Special sizes available.	Special sizes available.	High resilience foam; position adjustable; articulated flex-back.

Colons separate data on similar models of a manufacturer's device.
* Knit cover is machine washable; vinyl cover is hand washable.
** Price for both seat and back cushions is $695.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	PIN DOT	PIN DOT	PROFEX	PROFEX
MODEL	MODULAR	MODULAR COMFI	185CSP SERIES	7345 SERIES
TYPE	Foam	Foam	Foam	Foam
MATERIAL				
Cushion	High-density foam	Low-density foam	High-density, open-cell foam	High-density, open-cell foam
Cover	Vinyl	Vinyl	Polyester/cotton, vinyl	Polyester/cotton, vinyl
ILD, lb	Not specified	Not specified	Not specified	Not specified
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	No	No
WASHABLE				
Cushion	Yes	Yes	No	No
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, gas	No	No
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover			Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	No limit
SIZE, W x D x H, in	12 x 10 x 4 to 18 x 18 x 5	12 x 10 x 4 to 18 x 18 x 5	18 x 16 x 0.5-4	16 x 18 x 2, 16 x 18 x 4
WEIGHT, lb	Not specified	Not specified	Less than 2	Less than 2
PRICE	$260	$290	$23.90	$3.75-$7.25
WARRANTY	60 days	60 days	2 years	2 years
SPECIAL FEATURES	Firm contoured support; back cushions available.	High resilience contoured foam; back cushions available.		

Colons separate data on similar models of a manufacturer's device.

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FOAM AND HYBRID FOAM WHEELCHAIR CUSHIONS

MANUFACTURER	PROFEX	PROFEX		
MODEL	7440:7445 SERIES	7440X:7445X SERIES		
TYPE	Foam	Foam		
MATERIAL				
Cushion	High-density, open-cell foam	High-density, open-cell foam		
Cover	Polyester/cotton, vinyl	Polyester/cotton, vinyl		
ILD, lb	Not specified	Not specified		
MODULAR INSERTS	No	No		
Type				
Method of attachment				
WATERPROOF (CUSHION)	No	No		
WASHABLE				
Cushion	No	No		
Cover	Yes	Yes		
STERILIZABLE	No	No		
FIRE RETARDANT				
Cushion	Yes	Yes		
Cover	Yes	Yes		
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit		
SIZE, W x D x H, in	16 x 18 x 4 16 x 18 x 4	16 x 18 x 4: 16 x 18 x 2		
WEIGHT, lb	Less than 2	Less than 2		
PRICE	$11.60-$29.25	$40.80-73.35		
WARRANTY	2 years	2 years		
SPECIAL FEATURES				

Colons separate data on similar models of a manufacturer's device.

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ALTERNATING PRESSURE WHEELCHAIR CUSHIONS

MANUFACTURER	D.A. SCHULMAN INC	D.A. SCHULMAN INC	HUNTLEIGH TECHNOLOGY INC	
MODEL	SAFE-SEAT NO. 1	SAFE-SEAT NO. 2	ICC-13	
TYPE	Alternating pressure pneumatic	Alternating pressure pneumatic	Alternating pressure pneumatic	
MATERIAL				
Cushion	Urethane, high-density polyethylene	Urethane, high-density polyethylene	PVC	
Cover	Stretch cotton/lycra	Stretch cotton/lycra	PVC	
MODULAR INSERTS	No	No	No	
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	Yes	
WASHABLE				
Cushion	Yes	Yes	Yes	
Cover	Yes	Yes	Yes	
STERILIZABLE	Yes, gas or chemical (no steam)	Yes, gas or chemical (no steam)	Yes, gas	
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	
Cover	Requires chemical treatment	Requires chemical treatment	Yes	
MAXIMUM WEIGHT CAPACITY, lb	250	250	250	
SIZE, W x D x H, in	16 x 16 x 7	16 x 16 x 7	18 x 18 x 4	
WEIGHT, lb	10	16	2	
LINE VOLTAGE, VAC	120 (batt charger)	120 (batt charger)	120	
Current(@ volts), A	12 V DC (pump)	12 V DC (pump)	0.14	
BATTERY				
Life, hrs/charge	Lead acid, 30+	Lead acid, 30+	NA	
CABLE LENGTH, ft	3.5	3.5	10	
CABLE WEIGHT, oz	2	2	Not specified	
PRICE	$450	$580	$150 (cover and cushion)	
WARRANTY	1 year parts and labor; 1 month trial	1 year parts and labor; 1 month trial	6 months	
SPECIAL FEATURES	Includes bag that hangs on back of wheelchair; push-button control; ventilated seating to reduce heat and humidity buildup next to the skin.	Includes battery, battery charger, and bag that hangs on back of wheelchair; push-button control; ventilated seating to reduce heat and humidity buildup next to the skin.	Used with pump capable of operating alternating pressure mattress and the wheelchair cushion at the same time; individually replaceable cells (9).	

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	ACTION PRODUCTS	ACTION PRODUCTS	ACTION PRODUCTS	ACTION PRODUCTS
MODEL	5100 PROFESSIONAL	PILOT 9000	CENTURIAN 5200	COMMUTER
TYPE	Dry flotation	Dry flotation	Hybrid flotation (gel and foam)	Flotation (gel)
MATERIAL				
Cushion	AKTON dry polymer	AKTON dry polymer	AKTON dry polymer + high density foam	AKTON dry polymer
Cover	Knit cloth or insulated material	Knit cloth or insulated material	Knit cloth or insulated material	Knit cloth or insulated material
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	No limit	No limit	Not specified	Not specified
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	Not specified	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16 x 16 x 1.62	16 x 16 x 1	16 x 16 x 1.25	16 x 16 x 2
WEIGHT, lb	14.5	8	6.1	4.7
PRICE	Not specified	Not specified	Not specified	Not specified
WARRANTY	2 years	2 years	2 years	2 years
SPECIAL FEATURES	Enclosed in waterproof liner and washable cover with zipper and carrying loops; comes in 5 colors; will not leak if punctured; nonallergenicand fungus-resistant.	Available in 5 colors; will not leak if punctured; nonallergenic and fungus-resistant.	Provides greater stability due to gel/foam construction; available in 5 colors.	Easy to handle and transfer; available in 5 colors.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	BETTER SLEEP INC	BIOTECH LTD	CASCADE DESIGNS	FLOATATION SYSTEMS INC
MODEL	TWIN-REST SEAT CUSHION	COMFORT + GEL 400	VARILITE	MODULAR WATERSEAT
TYPE	Dry flotation (air)	Flotation (gel and foam)	Dry flotation (air, hybrid)	Flotation (water)
MATERIAL				
Cushion	Vinyl	High-density foam, gel	Low density foam, nylon taffeta	Polyurethane foam and vinyl
Cover	Cotton percale	Not specified	Nylon, low density foam	Vinyl
MODULAR INSERTS	No	No	Yes	Yes
Type			Plastic solid seat	Vinyl water unit
Method of attachment			Velcro	Inserted in cutout area in foam cushion
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	Yes (by hand)	Yes	No
Cover		Yes	Yes	Yes
STERILIZABLE	No	Yes, gas	Yes, gas	Yes, steam or gas
FIRE RETARDANT				
Cushion	No	Yes	Yes	Yes
Cover	No	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	No limit	230	300+	280
SIZE, W x D x H, in	16 x 17 x 2	17 x 16 x 3	16 x (16, 18) x 3 18 x (16, 18) x 3 14 x 16 x 3	15 x 15 x 4
WEIGHT, lb	Less than 2	5.4	2.9	8
PRICE	$15.44 with cover	$120	$250	Not specified
WARRANTY	No	2 years	2 years	6 months
SPECIAL FEATURES		Wrist strap; wrap-around zipper.	Self-inflating.	Built-in pressure gauge.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	GAYMAR	GAYMAR	GAYMAR	GRAHAM-FIELD INC
MODEL	LIFE-STYLE SOF-CARE #CCD 2000	LIFESTYLE SOF-CARE GEL CHAIR CUSHION	SOF-CARE #CC242 #CC 242	GEL CUSHION 35-5621
TYPE	Dry flotation (air and foam)	Flotation (air, foam, gel)	Dry flotation (air)	Flotation (gel)
MATERIAL				
Cushion	Polyurethane, foam	Polyurethane, foam, gel	Polyurethane	Polymer gel
Cover	Nylon with urethane backing	Nylon with urethane backing	Cotton/polyester	NA
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	NA
STERILIZABLE	Yes, steam or gas	Yes, steam or gas	Yes, steam or gas	Yes, gas
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	NA
MAXIMUM WEIGHT CAPACITY, lb	250	250	250	200
SIZE, W x D x H, in	18 x 16.5 x 2.5	18 x 16.5 x 3	18 x 17 x +/-1	16.5 x 18 x 2.5
WEIGHT, lb	3	3	Approx 1	12-15
PRICE	Not specified	Not specified	Not specified	$37.08
WARRANTY	1 year	1 year	6 months	6 months
SPECIAL FEATURES	Cover has nonskid bottom.	Cover has nonskid bottom.	Preinflated, no adjustment required; 3 layer construction.	Bacteria and odor resistant; 5 individual partitions to distribute gel evenly; cleaning, filling, draining, and general instructions provided; repair kit included.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	GRAHAM-FIELD INC	HEALTH AND MEDICAL TECH./AQUATHERM	HEALTH AND MEDICAL TECH./AQUATHERM	HEALTH AND MEDICAL TECH./AQUATHERM
MODEL	WATER OR AIR CUSHION 35-5622	AQUASEAT	ROYALE CUSHION	TENDER CUSHION
TYPE	Flotation (air or water)	Flotation (gel or water)	Flotation (gel)	Flotation (water, air, or gel)
MATERIAL				
Cushion	Vinyl, foam	Viscoelastic polymer	Viscoelastic polymer	Heavy gauge vinyl
Cover	NA	Vinyl	Plush polyester with lap blanket	Heavy-gauge vinyl (fleece cover available)
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	No	Yes	Yes
Cover	NA	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, steam or gas	Yes, steam or gas	Yes, steam or gas
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	NA	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	200	Not specified	Not specified	Not specified
SIZE, W x D x H, in	16.5 x 18 x 2.5	16, 17 x 16, 17 x 2.5	17 x 17 x 2.5	16.5 x 18 x 1.5
WEIGHT, lb	10-12	7	7	2 (water), 0.5 (air), 3 (gel)
PRICE	$30	Not specified	Not specified	Not specified
WARRANTY	6 months	1 year	1 year	6 months
SPECIAL FEATURES	Bacteria and odor resistant; 5 individual partitions to distribute gel evenly; cleaning, filling, draining, and general instructions provided; repair kit included.	Antibacterial; antistatic; will not stain; safety liner to help prevent leaks; nontoxic, nonallergenic.	Nontoxic, nonallergenic; antibacterial; available in 4 colors.	Has 4 reinforced grommets to hold in place; construction allows even movement of gel, air, or water, has smooth seamless surface.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER MODEL	HEALTH AND MEDICAL TECH./AQUATHERM WONDER CUSHION	HEALTH AND MEDICAL TECH./AQUATHERM AQUAPREMIUM	HUNTLEIGH TECHNOLOGY DYSON C14	INTERNATIONAL HEALTHCARE PROD THERA-FLO GEL CUSHION #GC1715
TYPE	Flotation (gel)	Flotation (gel or water)	Hybrid flotation	Flotation (gel)
MATERIAL				
Cushion	Viscoelastic polymer	Viscoelastic polymer	Liquid, foam, PVC, polyurethane	Vinyl, acrylic gel
Cover	Polyester	Plush fabric	Polyester/cotton	Cotton/rayon
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	No	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, steam or gas	Yes, steam or gas	Yes, gas	Yes, gas
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	No	Yes
MAXIMUM WEIGHT CAPACITY, lb	Not specified	Not specified	250	250
SIZE, W x D x H, in	17 x 17 x 1	16, 17 x 16, 17 x 2.5	18 x 17 x 3	15 x 17 x 3
WEIGHT, lb	4	7	5	12
PRICE	Not specified	Not specified	$260	$40
WARRANTY	1 year	1 year	1 year	1 year
SPECIAL FEATURES	Has handles for ease of transport.	Antibacterial; antistatic; safety liner helps prevent leaks; nontoxic, nonallergenic.	Sealed liquid cushion designed with individually linked water pockets to allow fluid movement and conformity while distributing pressure. Triangular gap in cushion to accomodate ischial tuberosities and coccyx.	Includes repair kit.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	JAY MEDICAL LTD	JAY MEDICAL LTD	JAY MEDICAL LTD	JAY MEDICAL LTD
MODEL	JAY ACTIVE 120:121: 122:125:126:128	JAY CUSHION 100:101: 102:103:104	JAY CUSHION 105:106: 107:108:110:115	MAXIMUS 400:400N
TYPE	Hybrid flotation	Hybrid flotation	Hybrid flotation	Hybrid flotation
MATERIAL				
Cushion	Urethane foam, Flolite fluid	Urethane foam, Flolite fluid	Urethane foam, Flolite fluid	Urethane foam
Cover	Nylon	Polyester, optional vinyl or foam-lined	Polyester, opt Air-exchange foam-lined or fabric designed for incontin user	Polyester or fabric designed for incontinent user
MODULAR INSERTS	Yes	Yes	Yes	Yes
Type	Leg wedges, optional back support**	Back, pelvic, hip,* leg	Back, pelvic, hip, leg	Hemorrhoid/coccygeal Flolite pad
Method of attachment	Velcro	Velcro	Velcro	Velcro
WATERPROOF (CUSHION)	Yes	Yes	Yes	Optional
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, gas	Yes, gas	No
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	No limit
SIZE, W x D x H, in	18 x 16 x 2:18 x 18 x 2:20 x 18 x 2:16 x 16 x 2:16 x 18 x 2, 3:14 x 16 x 1-2	18 x 16 x 2.5:18 x 18 x 2.5:20 x 20 x 2.5:18 x 20 x 2.5: 24 x 20 x 2.5	15.5 x 16 x 2.5:15.5 x 18 x 2.5:15.5 x 20 x 2.5:14 x 16 x 2.5: 14 x 13 x 2.5:12 x 11 x 2.5	18 x 16 x 1.25
WEIGHT, lb	5:5.6:6.6:4.5	7:9.4:10.5:10:14	6:7.6:9:4:4	1
PRICE	$310-365	Not specified	$295-435	$65
WARRANTY	18 months	18 months	18 months	18 months
SPECIAL FEATURES	Contoured foam base*** to enhance sitting stability and keep legs properly aligned; Flolite pad designed to flow so it relieves pressure on bony prominences; extra material in pad to eliminate surface tension and reduce shearing; pad segmented to prevent pelvic obliquity.#	Contoured foam base*** to hold hips at back of chair, enhance sitting stability, keep legs properly aligned; Flolite pad to relieve pressure on bony prominences; extra material to elim surface tension, reduce shearing; segmented pad; opt quadrant pad; nonskid bottom.	Contoured foam base*** to hold hips to back of chair, enhance sitting stability, keep legs properly aligned; Flolite pad to relieve pressure on bony prominences; extra material to elim surface tension, reduce shearing; segmented pad; opt quadrant pad; nonskid bottom.	Hidden Flolite insert to provide support and relieve hemorrhoids, relieve coccygeal soreness; low-profile design suitable for people w hemiplegia to encourage foot propulsion in wheelchair.

Colons separate data on similar models of a manufacturer's device.
* Pelvic obliquity buildup, hip guides, abductor buildup, adductor wedges, base wedge, solid seat inserts.
** Optional back support has a removable foam insert to adjust the amount of back support needed.
*** Foam base can be cut for modifications including amputee troughs, leg length discrepancy, or special sizes.
# Other special features include flat cushion top to encourage easy transfer and nonskid bottoms on covers.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	JOBST	LUMEX	LUMEX	LUMEX
MODEL	HYDRO-FLOAT 112 305 STD; 112 320 JUNIOR	AKROS ALTUS 2000; 3000	AKROS CUMULUS 2000; 3000	AKROS NIMBUS 2000; 3000
TYPE	Hybrid flotation	Flotation (gel and foam)	Flotation (gel and foam)	Flotation (gel and foam)
MATERIAL				
Cushion	Polyurethane foam	Elastomeric gel, foam	Elastomeric gel, foam	Elastomeric gel, foam
Cover	Nylon	Vinyl-coated nylon, Gore-tex	Polyester and cotton	Vinyl-coated nylon
MODULAR INSERTS	No	No	No	No
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes	No	Yes
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas only	Yes, gas	Yes, gas	Yes, gas
FIRE RETARDANT				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
MAXIMUM WEIGHT CAPACITY, lb	250	225:250	225:250	225:250
SIZE, W x D x H, in	16 x 18 x 3	14-17 x 16-18 x 2: 14-17 x 16-18 x 3	14-17 x 16-18 x 2: 14-17 x 16-18 x 3	14-17 x 16-18 x 2: 14-17 x 16-18 x 3
WEIGHT, lb	23.25:20	8:9	8:9	8:9
PRICE	$165	$122:$149	$87:$112	$90:$116
WARRANTY	1 year	2 years	2 years	2 years
SPECIAL FEATURES	Includes repair kit and protective plastic cover.	Custom sizes available.	Custom sizes available; 4 colors.	Custom sizes available; antimicrobial.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	LUMEX	KEN McRIGHT SUPPLIES	P.A. MEDICAL CORPORATION	ROHO INC
MODEL	AKROS STRATUS 2000: 3000	BYE-BYE DECUBITI	1650 FLOTATION	HIGH PROFILE THERAPEUTIC
TYPE	Flotation (gel and foam)	Dry flotation (air) Single and double valve styles	Flotation (air or water)	Dry flotation (air)
MATERIAL				
Cushion	Elastomeric gel, foam	Natural rubber	Vinyl, foam	Neoprene rubber
Cover	Cotton and polyester (outer), vinyl-coated nylon (inner)	Polyester fleece or stretch velour	Polyester and cotton	Lycra, nylon, and cotton
MODULAR INSERTS	No	No	No	Optional
Type				Height-adjustable cells
Method of attachment				Incorporated into cushion; adjusted by amount of inflation
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	Yes
STERILIZABLE	Yes, gas	Yes, steam or gas	No	Yes, steam or gas
FIRE RETARDANT				
Cushion	Yes	Yes	Fire resistant	Fire resistant
Cover	Yes	Yes	No	No
MAXIMUM WEIGHT CAPACITY, lb	225:250	300+	Not specified	No limit
SIZE, W x D x H, in	14-17 x 16-18 x 2: 14-17 x 16-18 x 3	12-20 x 11-19 x 2-4	17 x 17 x 2	15 x 15 x 4, 15 x 16.7 x 4 16.7 x 16.7 x 4
WEIGHT, lb	8:9	2	2	8
PRICE	$97:$121	$56-57, additional $20-$25 for cover	$10	$300
WARRANTY	2 years	1 year workmanship and materials	No	18 months
SPECIAL FEATURES	Custom sizes available; choice of 2 colors.	Can adjust fullness; inflated by mouth or by low pressure pump; strong and durable.	Durable two ply vinyl construction.	Adjustable, can be modified to meet special needs; custom sizes and designs optional; includes repair kit.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	ROHO INC	ROHO INC	ROHO INC	SPINAL TECHNOLOGIES
MODEL	LOW PROFILE THERAPEUTIC	MINI-MAX RECREATIONAL	ENHANCER POSITIONING & STABILITY	CHAIR FLOTATION CUSHION
TYPE	Dry flotation (air)	Dry flotation (air)	Dry flotation (air)	Air, water, or gel
MATERIAL				
Cushion	Neoprene rubber	Neoprene rubber	Neoprene rubber	Vinyl with air, water, or gel
Cover	Lycra, nylon, and cotton	Lycra, nylon, and cotton	Lycra, nylon, and cotton	NA
MODULAR INSERTS	Optional	No	Yes, standard	No
Type	Height-adjustable cells		Contoured surface w varied cell heights	
Method of attachment	Incorporated into cushion; adjusted by amount of inflation		Adjusted by amount of inflation	
WATERPROOF (CUSHION)	Yes	Yes	Yes	Yes
WASHABLE				
Cushion	Yes	Yes	Yes	Yes
Cover	Yes	Yes	Yes	NA
STERILIZABLE	Yes, steam or gas	Yes, steam or gas	Yes, steam or gas	Yes, gas
FIRE RETARDANT				
Cushion	Fire resistant	Yes	Yes	Yes
Cover	No	No	No	NA
MAXIMUM WEIGHT CAPACITY, lb	No limit	No limit	No limit	300
SIZE, W x D x H, in	15 x 15 x 2 15 x 16.7 x 2 16.7 x 16.7 x 2 16.7 x 18.5 x 2	15 x 15 x 1, 16 x 16 x 1 16 x 18 x 1	Made to any size	16 x 18 x 2
WEIGHT, lb	7.25	5	8	14 (water or gel) 3 (air)
PRICE	$300	$240	$325	$29.95
WARRANTY	18 months	18 months	18 months	1 year (manufact defects)
SPECIAL FEATURES	Adjustable, can be modified to meet special needs; custom sizes and designs optional; includes repair kit.	Includes repair kit; custom sizes and designs optional.	Adjustable, can be modified to meet special needs; custom designs optional; includes repair kit.	Includes repair kit.

Colons separate data on similar models of a manufacturer's device.

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FLOTATION & HYBRID FLOTATION CUSHIONS

MANUFACTURER	STERI-DYNE CORPORATION	STRYKER MEDICAL		
MODEL	1816 S	GEL PAD		
TYPE	Flotation (gel)	Flotation (gel)		
MATERIAL				
Cushion	Acrylic gel, vinyl, high density foam	Silicon gel		
Cover	Vinyl with fabric panel; terrycloth	Latex with cotton cover		
MODULAR INSERTS	No	No		
Type				
Method of attachment				
WATERPROOF (CUSHION)	Yes	Yes		
WASHABLE				
Cushion	Yes	No		
Cover	Yes	No*		
STERILIZABLE	Yes, steam or gas	Yes, steam or gas		
FIRE RETARDANT				
Cushion	Yes	Yes		
Cover	Yes	Yes		
MAXIMUM WEIGHT CAPACITY, lb	Not specified	300		
SIZE, W x D x H, in	16 x 18 x 3	16 x 16 x 1.5		
WEIGHT, lb	8	14.5		
PRICE	$79	$495		
WARRANTY	1 year	6 months		
SPECIAL FEATURES	No stitching present, cushion fully sealed inside and outside; inner gel material will not separate from foam.			

Colons separate data on similar models of a manufacturer's device.
* Cover repair kits and replacement services are available.

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Standards

American Society of Standards and Materials. Standard for Latex Foam Rubber, D1055, 1989.

American Society of Standards and Materials. Standard for Polyurethane Foam Rubber, D3770, 1989.

National Fire Protection Association. Standard for Flame-Resistant Textiles and Films, NFPA-701, 1985.

State of California, Department of Consumer Affairs. Flammability Law, CAL-117, 1986.

Citations from 'Health Devices Alerts' Database and 'Health Devices'

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09018 Eight wheelchair cushions representing five groups of cushions (gel, foam, water, air, and alternating pressure) evaluated in two populations (able bodied and spinal cord injured). Source: Seymour RS, Lacefield WE. Wheelchair cushion effect on pressure and skin temperature. Archives of Physical Medicine and Rehabilitation 1985; 66(Feb):103-8.

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Stewart SF, Palmiere V, Cochran GV. Wheelchair cushion effect on skin temperature, heat flux, and relative humidity. Archives of Physical Medicine and Rehabilitation 1980; 61(May):229-33.

Draft document consensus statement/pressure sores. National Pressure Ulcer Advisory Panel, PO Box 215, West Seneca, NY. 14225.

Manufacturers

Action Products Inc.,
22 N. Mulberry St.
Hagerstown, MD. 21740
(312) 797-1414

Activeaid Inc.,
One Activeaid Rd.
Redwood Falls, MN. 56283-0359
(507) 644-2951, (800) 533-5330

Allman Products Corp.,
7241 Eton Ave.
Canoga Park, CA. 91303
(818) 715-0093

American Health Systems
P.O. Box 26688
Greenville, SC. 29616
(803) 234-0495

Arnold Health Equipment Co.,
P.O. Box 205
Laporte, IN. 46350
(219) 325-0582

Better Sleep Inc.,
57 Industrial Rd.
Berkeley Heights, NJ. 07922
(201) 464-2200

Biotech Ltd.,
717 W. Smith Rd.
Medina, OH. 44256
(216) 892-9258, (800) 526-2158

Bodyline Comfort Systems
3730 Kori Rd.
Jacksonville, FL. 32257
(904) 262-4068, (800) 874-7715

Broda Enterprises Inc.,
72 Victoria St. S
Kitchener, ON., Canada N2G 2A9
(519) 578-9630

Canyon Products Corp.,
Sub. Invacare Corp.,
10173 Croydon Way
Sacramento, CA. 95827
(916) 361-1687, (800) 421-7777

Cascade Designs Inc.,
4000 1st Ave.
Seattle, WA. 98134
(206) 583-0583, (800) 527-1527

Commander-Omni Co. Inc.,
P.O. Box 246
Garden City, NY. 11530
(516) 489-4724, (800) 645-4704

Convo Corp.,
12851 Reservoir St.
Chino, CA. 91710
(714) 590-8898, (800) 621-4163

Duro-Med Industries Inc.,
301 Lodi St.
Hackensack, NJ. 07602
(201) 488-5055, (800) 526-4753

Dynamic Systems Inc.,
Rt. 2
Box 182B
Leicester, NC. 28748
(704) 683-3523

Floatation Systems Inc.,
P.O. Box 5070
Syracuse, NY. 13220

Freedom Designs Inc.,
310 E. Easy St.
Simi Valley, CA. 93065
(805) 582-0077, (800) 331-8551

Gaymar Industries Inc.,
10 Centre Dr.
Orchard Park, NY. 14127
(716) 662-2551

Golden Fleece International
14240 60th St. N.
Clearwater, FL. 34620
(813) 531-5129, (800) 562-7326

Graham-Field Inc.,
400 Rabro Dr. E.
Hauppauge, NY. 11788
(516) 582-5900, (800) 645-8176

Health and Medical Techniques
Aquatherm Products Corp.,
P.O. Box A
Rahway, NJ. 07065
(201) 382-9300, (800) 526-4296

Huntleigh Technology Inc.,
227 Rt. 33 E.
Manalapan, NJ. 07726
(201) 446-2500, (800) 223-1218

International Healthcare Products
3364 Commercial Ave.
Northbrook, IL. 60062
(708) 291-9229

Jay Medical Ltd.,
4745 Walnut Ave.
Boulder, CO. 80301
(303) 442-5529

Jobst Institute Inc.,
P.O. Box 653
Toledo, OH. 43694
(419) 698-1611

Kees Goebel Medical
9663 Glades Dr.
Hamilton, OH. 45011
(513) 271-3400

Kendall-Futuro Co.,
Subsidiary of the Kendall Co.
5801 Mariemont Ave.
Cincinatti, OH. 45227
(513) 271-3400, (800) 543-4452

Lumex Div.,
Lumex Inc.,
100 Spence St.
Bay Shore, NY. 11706
(516) 273-2200, (800) 645-5272

Mason Medical
8000 Cooper Ave.
Bldg 28
Glendale, NY. 11385
(718) 326-3244

Ken McRight Supplies
7456 S. Oswego
Tulsa, OK. 74136
(918) 492-9657

Med Foam Div.,
Hudson Industries
5250 Klockner Dr.
Richmond, VA. 23231
(804) 226-1155, (800) 343-8112

PA Medical Corp.,
P.O. Box 1286
Columbia, TN. 38401
(615) 381-3422

Pin Dot Products
6001 Gross Point Road
Niles, IL. 60648
(312) 774-1700

Profex Medical Products Div.,
Professional Specialties Co.,
P.O. Box 16043
St. Louis, MO. 63105
(314) 727-2996, (800) 325-0196

Roho Inc.,
P.O. Box 658
Belleville, IL. 62222
(618) 277-9150

DA Schulman Inc.,
7701 Newton Ave N.
Brooklyn Park, MN. 55444
(612) 561-2908

Spinal Technologies
859 Rt. 130
East Windsor, NJ. 08520
(609) 443-8083, (800) 257-5145

Steridyne Corp.,
3725 Investment Ln.
Riviera Beach, FL. 33404
(407) 844-3486, (800) 327-6185

Stryker Corp.,
420 Alcott St.
Kalamazoo, MI. 49001
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REquest

evaluating assistive technology

REquest Program Overview

The REquest Rehabilitation Engineering Center (REC) on the Evaluation of Assistive Technology is based at The National Rehabilitation Hospital in Washington, D.C.

The REquest REC has been funded for five years under a cooperative agreement with the National Institute on Disability and Rehabilitation Research to evaluate selected pre- and post-market products that will assist consumers of assistive devices in selecting and applying appropriate technology. The REquest Program also provides technical assistance to developers and manufacturers on how to prepare their products for market. The REquest Program is conducting a number of studies that will help in identifying some of the problems that consumers, clinicians and third-party payors face when purchasing assistive technology. These studies include: a National Survey on the Abandonment of Technology, a series of focus groups to ascertain the criteria that experienced users of assistive technology use when selecting products, and a study on Universal Design and how manufacturers can be persuaded to design their products to suit a wider audience that includes the elderly and persons with disabilities.

REquest documents contain valuable material on selected evaluations and comparative studies of assistive technology, informational literature on designing products, test methodologies and protocols used to evaluate technologies, and resource listings on various aspects of assistive technology.

Additional information and a listing of REquest materials is available by contacting the REquest Rehabilitation Engineering Center offices at the address and telephone numbers indicated below.

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Design gives freedom. An object can make life easier, give us new possibilities and encourage us to take on new challenges. An object can have a decisive effect – as an extended arm, or something that makes us smile. Whatever our own personal situation in life. Because we are all different. Tall, short, old or young. With one arm, paralysed legs, or impaired vision. We are all unique. The exhibition Design for Every Body displays carefully designed objects intended for us all.

freedom can be: being able to swim in the heart of the capital city

In Sweden good design is an important part of everyday life. Swedish design is now experiencing very strong development. This is linked to the fact that in 1998 the Swedish government implemented a special action programme for architecture and design. The aim is to raise the quality of what is being produced and to ensure that public-sector activities serve as a good example.

design for every body

We believe that the issue of good design is an important democratic right. It is quite simply a matter of equity and welfare. The distinctive attributes of good Swedish design are that it is: thoughtful, sparing, functional and timeless. This is evident in the selection included in the Swedish Society of Crafts and Design's exhibition, Design for every body.

In creating Swedish society, we now ask ourselves how we create design, and not just what design we are creating. Good design often comes about through constructive collaboration with the users. Design for every body is an exhibition of Swedish-made products which should suit us all. At different stages of our lives, most of us are functionally impaired in one way or another. Good design gives us greater freedom despite such restrictions. Everyone needs to live as active and independent a life as possible. The exhibition shows our approach to this issue and gives an up-to-date picture of what we believe to be good design.

During the Swedish Presidency of the Council of the European Union in the first six months of 2001, we are holding many exhibitions and other cultural activities in EU member states and in the candidate countries. Architecture and design are one of the areas being given priority. In my view, the fact that the exhibition Design for every body is now being shown in Prague, Budapest and Bratislava is an important part of the cultural exchange between our countries.

It is my hope that the exhibition will inspire more designers and manufacturers to invest in new products and surroundings which are suitable for more people. I hope that we will see more such design as can be encompassed by the concept of Design for every body. **Marita Ulvskog, Minister for Culture**

We are all disabled at some point in our lives. Even if I as a so-called able-bodied person am not always conscious that that is what I am. The occasions when I face physical difficulties occur so seldom that I simply do not place much importance on them. More or less automatically, I go around the obstacle or just relinquish the goal. That is what I do today. But if instead I were to confront different obstacles on a daily basis, how would I then think and act?

A person becomes handicapped in a certain environment. A child is handicapped in an environment built for adults. Stairs are obstacles to prams and wheelchairs. The visually impaired have difficulty in reading unclear signs. Certain environments shut out people with asthma and allergies… The list can easily become long, and the question is rather if the list with the "able-bodied" group is, in fact, smaller than the list of people with some form of impairment?

At the end of March, the Swedish government presented a proposal for a national action plan of policies for the disabled. Before 2010, all public premises and transport will be accessible to all disabled people. Disabled people are to have the same rights and obligations as everyone else, and are not to be regarded as a special group. This approach is a breakthrough – a concrete step away from the "them and us" mentality. The programme makes it clear that everyone's knowledge and experience are important to society, and that the social environment must be designed so that we can all contribute to its development. Municipalities who do not comply will be fined.

Swimsuit. Designed by Stay in Place.

Fabric pattern Blind. Designed by Saldo.

Throughout the years, the Swedish government's approach has been of considerable significance for the image of Sweden as a model country in this field. The first regulations governing issues of accessibility in Sweden came into effect as early as 1966. And over the almost 35 years since then, Swedish designers have come a long way in their work on design for the disabled. All the time, the goal has been to make it possible for the disabled to live as actively and independently as possible, through such means as personal assistants and ergonomic aids.

"Accessibility for all" has become a slogan. Hopefully it will soon be as self-evident to us as the right of access that Swedes enjoy to walk on private land and pick wild flowers, berries or mushrooms. A right of which we are very proud, and one that has become a symbolic proof of equality in Sweden. And now, with "accessibility for all", we do not only have the right to wander in forests and fields, we also have the right to the means of getting there.

Thanks to the computer and IT revolution in recent years, the personal computer soon became available to everyone. The computer has offered unimagined possibilities and given whole new dimensions to such fields as communication and information. Many places in the world are now seeing extensive development of various "smart" products, which also have the goal of making life easier. Simply put, the "smart" house means that most things in your home can be controlled remotely. Lighting, warmth, the television, food purchases and so on are controlled via infra-red light, your own voice or a WAP telephone. This entire field demands new design expertise: a whole series of technical products must be given a user-friendly interface, that is, a design that simply and clearly indicates how the object should be used.

Lamp “do Swing”. Designed by Thomas Bernstrand. Droog Design.

Swedish design is known for being functional and having a clean, minimalistic form. Certainly, function is still the core of our design tradition, even if today the market has more and more products in which function does not play the key role. Playful objects that capture the needs of new ways of life are appearing as a stimulating complement to the main trend of Swedish design. Take the lamp "do Swing", designed by Thomas Bernstrand, as an example. A chandelier that you can actually swing from – just like in films. A lamp that sends a message of an unforced lifestyle – do what you've always wanted. In the same way, the lamp can work as an assistive device – something to grab onto when you want to get up from a chair or out of bed.

We need objects that provoke the senses. For who does not need to challenge his prejudices or examine her attitudes at regular intervals? And perhaps it requires even more will, energy, power and fantasy to overcome our prejudices than it does to overcome a disability?

How the forms of our everyday environment actually affect us has not really been explained. We only know that they do. Beauty, for example, is supposed to have a positive effect on the rehabilitation process – which should mean that great care is used in designing such environments… In the same way, it should be self-evident that assistive devices are developed in close co-operation with a designer.

Perhaps in time we will no longer need any assistive devices in the traditional sense of the term – when all products work for everyone. Although is that really the direction we wish to take? Despite everything, our needs are different. The most important thing should be that all products are designed with just as much knowledge and care as those in the exhibition Design for Every Body. **Pernilla Åbrink**

freedom can be: being able to break down barriers

freedom can be: going to the cottage on vacation

exhibited objects

Wheel chair Act. Etac.
Light, easy, comfortable and active. Made of pure titanium.

Proxident toothbrush. Designed by Ergonomi Design Gruppen for Athena Nordic.
A toothbrush with an ergonomic handle and replaceable brush.

Chair BD:6. Designed by Björn Dahlström for Klara/cbi.
Stackable chair with practical handles to grasp when you move the chair or stand up.

Wheel chair Act. Etac.

Life jacket. Designed by Peter Ejvinsson. (A graduation project at the Department of Industrial Design, Konstfack, 1999, in co-operation with Peak Performance.)
A comfortable and functional life jacket whose down-like appearance should encourage use.

Slippers. Designed by Daniel Ohlsson for Klara/cbi.
One size fits all. Swedes either go in stocking feet or wear indoor shoes at home – outdoor shoes are left at the entrance. Daniel Ohlsson's slippers are suitable for both everyday or party use, and are also easily packable for travelling.

The Pipinette potty. Designed by Olle Gyllang for Pipinette.
To keep beside your bed at night, in the sailboat, when convalescing, or in the event of incontinence…?! The potty is designed so that a woman can comfortably use it while standing, but it works equally well for men and children.

Travel kit. Designed by Olle Gyllang for Pipinette.
With the Travel kit in your bag, you no longer need to hunt for a public toilet. The disposable package consists of a thin foil pouch to urinate into. Inside is a "magic pillow" that transforms the urine into a drop-free mass in approximately one minute. Travel kit is easy to keep nearby – in the car, your pocket or your briefcase. Urinate directly into the bag or use it together with the Pipinette potty. Travel kit can also be used in conjunction with different holders or containers adapted to individual needs depending on the form of impairment.

Ergonomic holder for the Travel kit. Designed by Ergonomi Design Gruppen for Pipinette (Patent pending).
This holder is designed so that a woman can comfortably use Travel kit when either standing or sitting. The handle is designed to provide good support even in the event of impaired hand functions. The Travel kit bag is placed onto the holder and after use the bag can be tied together and placed in a handbag or pocket until it can be thrown away.

Holder for the Travel kit. Designed by Olle Gyllang for Pipinette (Patent pending).
A holder for the Pipinette potty and Travel kit. The bag is stretched over the ring and then works just like the potty. This holder is designed primarily for use while standing. It can be used anywhere you can be undisturbed.

The Pipinette potty. Designed by Olle Gyllang for Pipinette.

Silicon lamp. Designed by Monica Förster for David design.

Cuff link Futura. Designed by Björn Dahlström for Simplicitas.
The stress-free cuff link, Futura, breaks a long tradition of annoyance and time-wasting fumbling. Futura, manufactured in stainless steel, is fitted in a second by pressing it in place and is as easily removed, due to the shaped arrow that points the way into the third millennium.

Armchair Dropp. Designed by Claesson Koivisto Rune for Skandiform.
An easy chair worth growing old in! For both public settings and home environments.

Silicon lamp. Designed by Monica Förster for David design.
Have it on your lap, put it on the floor or take it with you out into nature. Silicon is a material that can stand both heat and cold and is also protectively soft if you happen to drop the lamp on the ground. The low-energy bulb means that the lamp is never too hot to handle.

Shower stool Clean. Designed by A&E Design for Etac.
A shower stool designed in every detail to make life easier for both users and care-givers. The seat is completely open at the back, which makes it easier for the care-giver to carry out personal hygiene tasks and at the same time reduces embarrassment for the person on the chair. Clean is manufactured without seams and is guaranteed not to rust. The light, smooth plastic detailing on all sides also makes it difficult for dirt to stick.

The Contour pen for rheumatism sufferers. Designed by Design Konsulterna for Etac.
The gently rounded shape is pleasant to grip and can be held in the "V" of the thumb. It counteracts pressure on the "V" of the thumb and strain on the index finger.

Walker Tango. Designed by Morgan Ferm for Etac.
You feel secure when you can brake your walker quickly and easily, and when it is stable and adaptable. Tango's brakes are maintenance free and the seat is comfortable.

Drip equipment Pompo. Designed by Jonas Ahnmé (A graduation project at the Department of Industrial Design, Konstfack, 2000.).
Medical drip equipment with a pleasing design that is easy to use, even for children who are playing. The solution is a new kind of infusion pump powered by pressurised air instead of electric current.

Body care program Beauty. Designed by Ergonomi Design Gruppen for Etac AB.
A series of ergonomically designed body care products – carefully balanced to give full power and minimal strain. With its appealing design, Beauty breaks down the "handicapped" category, and has become attractive to a much broader customer group.

Grip Uni. Designed by Ergonomi Design Gruppen for Etac.
A grip that makes it possible, even for people with greatly reduced strength in their arms and hands, to turn on a water tap and perform other actions that require strength. The springy hexagonal points take a firm grasp on all kinds of handles.

Tap handle Handy. Designed by A&E Design for Etac.
An effective power grip that makes turning movements easier. The tap handle fits most four-pronged plastic taps.

Vacuum cleaner Oxygen. Electrolux.
At last! A vacuum cleaner that gets in under furniture without you having to bend your back. And it filters the air at the same time. In fact, after use the room not only looks cleaner, the air is also more healthy.

The ring Fingerfärdig©. IMG Rörlighet.
Both jewellery and a support for the finger joint. The ring Dexterous supports and stabilises the joints and helps prevent over-extension of the finger's middle joint.

Backpack Boblbee. Designed by Jonas Blanking for Global Act.
Are you an active urbanite? This backpack with a hard shell is ideal for carrying a computer, camera or bottles. It's also comfortable on your back.

Battery-powered lawnmower Auto Mower. Designed by Gunnar Leijonberg for Husqvarna.
The lawnmower we've been longing for! It looks after itself, works silently, has no exhaust emissions, and recharges when needed. A low-current loop limits the area to be cut and Auto Mower is also fitted with a burglar alarm in the form of an audible signal which activates if the mower is lifted up.

Child's stool Patrull. Ikea of Sweden.
A well-made and a safe stool to be used in the bathroom.

Vacuum cleaner Oxygen. Electrolux.

Screwdrivers. Designed by Ergonomi Design Gruppen for Sandvik Belzer.

Solar-powered lawnmower Solar Mower. Designed by Gunnar Leijonberg for Husqvarna.
A quiet, self-propelled lawnmower powered only by solar energy. Work begins as soon as the day becomes light. Using sensors, Solar Mower cuts a pre-defined area and avoids obstacles automatically.

Armchair Mobile with a wheeled trolley. Designed by Sandin & Bülow, Materia.
A compact, movable armchair with adjustable trolley – for the office and home.

Screwdrivers. Designed by Ergonomi Design Gruppen for Sandvik Belzer.
Ergonomically well designed for a good grip and strength.

Hiking staff Joystick. Designed by Björn Dahlström for Magis.
A staff to help Computer Age people to keep fit. Joystick has a variety of grips for different body heights and terrain.

Pacemaker Microny. St. Jude Medical.
The world's smallest pacemaker.

Pacemaker Integrity. St. Jude Medical.
The pacemaker was invented in Sweden in 1958. The first pacemaker patient is still alive today and is on his 26th pacemaker.

Lamp "do Swing". Designed by Thomas Bernstrand. Droog Design.
Do what you've always wanted – swing from the chandelier! It's made for it! Or hang it over your chair and use it to pull yourself up.

Eyeglasses. Designed by Staffan Preutz for Polaris Optic.
An epoch-making tool for seeing – the only eyeglasses in the world that have been granted a patent. These glasses without an earpiece are comfortable to wear and remain surprisingly steady without pressure.

Fabric pattern Blind. Designed by Saldo.
How do you describe something that you perceive with one of your senses to a person who doesn't have that particular sense? Is it possible to give a blind person the "sight" or "feel" of a colour even if that person has never seen yellow, orange, blue…? Can something beyond

description be conveyed? Can you talk about silence or is that something that only fools do? How do you describe the colour yellow to a person who is blind? This is a printed pattern in Braille. The pattern has a text that describes the sensation of yellow and is printed using a special dye which forms a relief on the material, prominent enough for it to be read by the fingers. For those of us who can see, the material is an unintelligible mystery.

Coffee/tea pot and juice jug. Ergonomi Design Gruppen for SAS.
Studies of cabin staff at work resulted in a drip-free pot with a good grip. The pot is easy to pour from and easy on the wrist.

Pocket mirror Veritas. Designed by Eva Åbinger for Simplicitas.
No more seven years of bad luck, thanks to this attractive, unbreakable mirror of stainless steel in a practical credit card format.

Tricycles Trehjuling, 12" and 24". Skeppshultcykeln, Albert Samuelsson & Co.
Cycling is good for many reasons, such as a means of transport and way to build up the muscles, but the most important reason must surely be the independence it offers.

Swimsuit and aqua-fit glove. Designed by Stay in Place.
Exercising in water is kind to the body. The Stay in Place swimsuit is made of chlorine-resistant fabric, is low cut and lined with a stable inner layer to give extra support when jumping and working out. Use the aqua-fit glove to create extra resistance.

BH Zipper/ SuperZipper. Designed by Stay in Place.
A sports bra that provides firm support to the bust and also wicks moisture away from the body.

A text telephone for people with speech or hearing impairments. Designed by Björn Dahlström for Comterm Utveckling.
Speak and write to each other at the same time over a phone line. The hearing-impaired can use his or her own speech, which is transformed into text via the telephone. In the same moment, the listener can reply via his/her terminal. A successful development that permits spontaneity and a feeling of independence.

Shopping cart in a Sport pattern. Design: Ingela Håkansson for 10-gruppen.

freedom can be: being able to roam freely in the woods and fields

design for every body | swedish design for the active life

The exhibition

Tour responsible: Henrik Orrje, The Swedish Institute
Exhibition Curators: Christina Nilson-Dag and Pernilla Åbrink, Svensk Form (The Swedish Society of Crafts and Design)
Exhibition architecture: Konstfack (The University College of Arts, Crafts and Design, Stockholm) with Head of the Industrial Design Department, Professor Kristofer Hansén, Project co-ordinator and supervisor Magnus Ericson and Industrial Design students: Marie-Louise Gustafsson, Anna Westholm, Viktor Brattström, Gustav Nord

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SVENSKA INSTITUTET SI THE SWEDISH INSTITUTE

eu2001.se

The presentation of Design for every body is a collaboration between The Swedish Institute and Svensk Form (The Swedish Society of Crafts and Design). Design for every Body is part of the programme of cultural events planned in conjunction with Sweden chairing the EU Council of Ministers during the first half of 2001.

Svensk Form

Svensk Form (The Swedish Society of Crafts and Design) is mandated by the Swedish government to promote Swedish design both nationally and internationally.

Svensk Form has recently opened a new design centre on the island of Skeppsholmen in Stockholm.

The Society publishes FORM Design Magazine in six issues per year, with English summaries.

Svensk Form honours annually a number of Swedish products with the Excellent Swedish Design award and with a selection of Young Swedish Design.

Svensk Form has a unique library and picture archive.

Through the Svensk Form Copyright Panel, the Society assists designers and manufacturers in cases of plagiarism.

Svensk Form arranges exhibitions, seminars, study visits and design events.

Svensk Form

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Since 1991, the Stockholm Water Prize is awarded to someone who has contributed substantially to water preservation and enhancement through applied research or direct action. It recognises efforts that increase knowledge of, and win respect for, the water environment. The mean water temperature in Stockholm in June is 16 degrees Celsius.

814,176 foreign-born immigrants live in Sweden. To protect the rights of individual citizens there is a series of ombudsmen in Sweden, such as the Equal Opportunities Ombudsman, the Disability Ombudsman, the Ombudsman against Ethnic Discrimination and the Ombudsman against Discrimination because of Sexual Orientation.

Since 1994, Swedes have a statutory right to five weeks annual paid vacation. About 40% of Sweden's population has access to a cottage.

The Swedish public right of access gives everyone the right to spend time in the countryside and pick wild flowers, berries and mushrooms as long as they show care and consideration and do not litter.

for every body