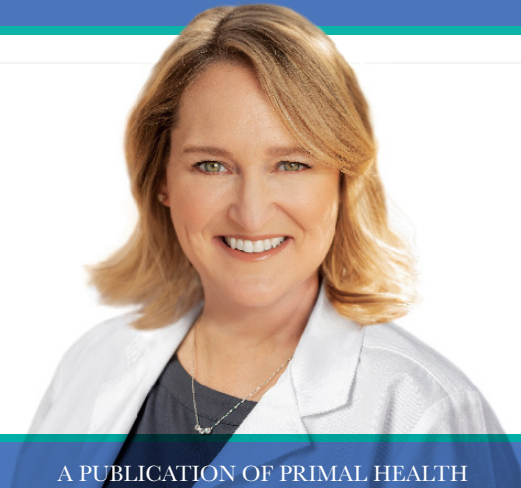


Dr. Marlene's NATURAL HEALTH CONNECTIONS

VOLUME 9 | ISSUE 3:3

A PUBLICATION OF PRIMAL HEALTH



Movement Matters More Than You Think — Part Three

The Muscle You Don't See Is the Muscle That Protects You Why Muscle Quietly Declines — and Why That Matters



Last week, we talked about what happens inside a muscle cell when it contracts. We looked at how even short bursts of effort can change glucose transport and improve insulin sensitivity for hours. That teaching focused on what muscle does metabolically.

This week, I want to shift the lens to muscle tissue itself.

There is a quiet shift that happens as we move through adulthood, and most people don't notice it until much later. Clothes may fit the same (or not!). The number on the scale may not change dramatically (or it does....). Daily routines feel familiar. But underneath those surface details, muscle tissue is slowly declining if it is not intentionally challenged.

This does not happen suddenly. It happens gradually — almost invisibly. Beginning in our thirties, and accelerating over time, the body becomes selective about what it maintains. If a tissue is not regularly used beyond basic daily activity, the body conserves energy by reducing it.

Muscle is expensive tissue. It requires constant energy, blood flow, hormonal signaling, and repair. If the body decides it is not being used in a meaningful way, it will slowly reallocate those resources elsewhere.

The problem is that muscle does far more than move us from place to place.

It stabilizes joints. It protects bone density. It supports balance. It cushions falls. It assists circulation. It helps regulate inflammation. It influences how resilient we are during illness. It contributes to posture and spinal stability. It affects how confidently we move through the world.

When muscle declines, the early signs are subtle. Slight instability. Slower recovery. Increased stiffness. A little less confidence on stairs. Over time, those small changes accumulate.

This week, I want to look at muscle not as something aesthetic, or a “good idea to have” but as something essential — a tissue that quietly determines long-term independence.



What Happens When Muscle Is Not Challenged

Muscle tissue is dynamic. It is constantly being broken down and rebuilt. The balance between those two processes determines whether muscle mass increases, stays stable, or declines.

When muscle fibers are challenged with resistance — meaning they must generate force beyond daily activity — the body responds by reinforcing them. Protein synthesis increases. Neural recruitment improves. Mitochondria adapt. Capillary density may expand. The muscle becomes more capable of generating force.

When muscle is not challenged, the opposite slowly occurs. Protein breakdown exceeds synthesis. Fast-twitch fibers, which are responsible for power and quick response, are often lost first. Neural signaling becomes less efficient. Strength declines even before visible muscle size changes.

This process is known as sarcopenia, and it begins earlier than most people realize. It does not require inactivity in the extreme sense. It simply requires the absence of meaningful resistance.

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Walking is valuable. It supports circulation and metabolic health. But walking alone rarely provides enough resistance to preserve muscle strength long term. Muscle fibers must be asked to produce force.

Force is the key word here.

Climbing stairs requires more force than walking on flat ground. Lifting a moderately heavy object requires more force than carrying something light. Rising from a low chair requires more force than standing from a tall one. If the body is never asked to generate force beyond what is comfortable, it adapts downward. Meaning, it gets lazy.

This is not dramatic at first. But over the years, it changes how stable a person feels, how easily they recover from illness, and how independent they remain.

Strength Is More Than Appearance

One of the main reasons muscle loss is underestimated is that it does not always show up on a scale. Weight can remain stable while muscle mass decreases and fat mass increases. The external appearance may not change significantly, but your internal ability does.

Muscle also acts as an endocrine organ. When it contracts, it releases signaling molecules called myokines. These influence inflammation, immune function, and even brain health. Stronger muscle tissue is associated with improved cognitive resilience and lower risk of certain chronic conditions.

Strength also determines how well you respond to stress. During illness or injury, muscle provides a reservoir of amino acids for repair. Individuals with greater muscle mass often recover more quickly because they have more metabolic reserve.

In other words, muscle is not simply about lifting weights. It is about durability, and more.

This was demonstrated in a rather shocking way in a study I read a few years ago. The researchers took 20 young men, aged 24 to 27, and put them on strict bed rest — they were not allowed to deviate from being in bed, except to use the restroom (even that was limited to 15 min./day) but they could use a laptop or watch TV or read. Within 9 days, they all exhibited signs of insulin resistance. **ALL OF THEM.** The inactivity actually negatively impacted 4,500 genes in skeletal muscle (out of 41,000 so more than 10% of them). **IN ONLY 9 DAYS.**

Now, nearly all of you reading this are not on forced bed rest. Yes, you might not be exercising as much as you could be, but you're walking around your house, or taking the dog out, or walking a flight of stairs here and there. But it gives you an idea of what happens when someone is in the hospital, for example, or they break their ankle and spend much of their day in bed.

And if you can correctly imagine that this could happen to guys in their 20's, what do you think occurs to those of us who are older?

Putting This Into Practice: Asking Your Muscles for Force

If Week 2 was about timing and repeated contraction, this week is about resistance and force.

Take an honest look at your current movement patterns. Does anything you do require effort that feels meaningfully challenging? Do you ever reach the last few repetitions of an exercise and feel that you have to really focus to complete them? Or does most of your activity fall into the comfortable category?

You do not need a gym membership to challenge muscle. However, you do need resistance.

Bodyweight exercises can be plenty challenging enough if performed deliberately. And so convenient because you can do them at home! Squats, lunges, push-ups (against a wall or on the floor), step-ups, and carrying moderately heavy objects all require force production. Resistance bands are another effective option because they increase tension gradually through the movement.

The goal is not exhaustion. It is to create a signal strong enough that the body decides that the muscles you're using are worth maintaining.

For many people, two to three sessions per week of focused resistance work are sufficient to slow or reverse decline. Each session does not need to be long. Twenty to thirty minutes of intentional effort can create meaningful change.

Or maybe you decide to do two exercises a day, doing 10 repetitions each, and 2-3 rounds total. That might take 15 minutes.

What matters is that the final repetitions feel challenging but controlled. If you can easily perform many more repetitions without strain, the resistance may be too light to stimulate adaptation.

As strength improves, the resistance must increase modestly. Otherwise, like we were discussing a couple of weeks ago, the body adapts and returns to maintenance mode.

Source: Alibegovic, Amra Ciric, et al. "Insulin resistance induced by physical inactivity is associated with multiple transcriptional changes in skeletal muscle in young men." *American Journal of Physiology-Endocrinology and Metabolism* (2010).

Try This Today: Three Ways to Begin Preserving Muscle

1. Test Your Baseline Strength

Choose one movement — such as a bodyweight squat, or getting out of a chair, or a wall push-up — and count how many controlled repetitions you can perform before the movement becomes difficult. Difficulty should mean you must concentrate to complete the repetition with proper form. This is not a competition; it is information. Knowing your baseline allows you to track progress.

2. Introduce Two Strength Sessions This Week

Schedule two short sessions focused on resistance. This might include three sets each of squats, push-ups, and step-ups. Rest between sets, and focus on controlled movement. The goal is to reach a level where the last few repetitions require effort.

3. Carry Something Moderately Heavy

Farmers call it “carrying feed.” In practical terms, it means picking up something with real weight and walking with it. This could be groceries, a water container, or a pair of dumbbells. Carrying something challenges grip strength, core stability, and lower body strength simultaneously. It mimics real-life demands and builds functional capacity.

After a few weeks of consistent resistance work, you may notice subtle changes first — greater steadiness, improved posture, easier stair climbing, quicker recovery. Over time, those subtle changes become significant protection.

What's Next? *Part Four of Movement Matters More Than You Think*

In Part Four, we'll add another piece to the puzzle: what happens inside your heart and blood vessels when you train them intentionally — and why endurance, circulation, and oxygen delivery quietly influence everything from brain clarity to long-term independence.

About Dr. Marlene

Dr. Marlene Merritt's passion for natural medicine is fueled by her drive to help others, and her own experience of overcoming a debilitating heart condition, diagnosed at the age of 20. A competitive cross-country cyclist at the time, she suddenly began experiencing severe chest pains. Forced to quit the sport, she suffered from extreme fatigue and constant pain for another 15 years, despite doing everything that conventional, Western medical doctors told her to do.



And then, the tide turned. A physician trained in naturopathic healing recommended a whole-food vitamin E supplement. A week after starting the supplement regimen, her energy began to return, and the pain began to disappear.

Dr. Marlene is a Doctor of Oriental Medicine, has a Master's in Nutrition, and is an Applied Clinical Nutritionist. She is Board Certified in Bariatric Counseling, and certified in the Bredesen MEND Protocol,TM a groundbreaking method of reversing Alzheimer's disease. She sees patients at the Merritt Wellness Centers in Austin, Texas, and Santa Fe, New Mexico, trains health practitioners nationwide, and is the author of *Smart Blood Sugar* and *The Blood Pressure Solution*.

70-Year-Old Man Feasts on Pasta, Cheese, Bread, and Wine...



...and wakes up with a normal blood sugar reading of 84!

After getting “the lecture” from his doctor, 70-year old Bob Bianchi finally decided to eat better to help control his blood sugar. And while he wasn’t happy about it, he’d been doing pretty well...

Then recently, Bob’s son wanted him to celebrate his birthday together at a favorite Italian restaurant. How could Bob turn him down? “I’m just gonna take a night off and go for broke,” Bob decided.

And boy did Bob *feast*. He ordered the linguini with shrimp, layered in gooey mozzarella cheese and buried under heaps of sauce. Add in some bread and red wine, and it was heavenly!

So when Bob went to test his blood sugar the next morning, he was ready for bad news. But when the numbers popped up on the screen, he couldn’t believe it... His fasting blood sugar **was a mere 84** — smack dab in the middle of the normal range!

How the heck could this happen? Well, Bob had been eating sensibly most of the time, following his doctor’s orders. And he’d also been protecting his blood sugar by taking **Glucoburn** from Primal Labs, a leader in nutritional supplements.

In fact, after just two days of taking Primal Labs’ **Glucoburn**, Bob was shocked to see his morning fasting numbers at 63!

Glucoburn is an easy-to-swallow gel cap containing four powerful nutrients to help with blood sugar control:

- ① **White Mulberry Leaf Extract (the “Sugar Blocker”):** Prevents carbohydrates from getting broken down into sugar, so they never make it to your bloodstream.
- ② **Banaba Leaf Extract:** Acts like an insulin copycat because it mimics the way insulin works at the cellular level. This allows your body to burn more sugar.

③ **ALA (Alpha Lipoic Acid):** Deep inside the energy factories in your cells, ALA helps break down sugars and amino acids into raw fuel — giving you more energy.

④ **Gymnema Sylvestre (the “Sugar Destroyer”):** This powerful nutrient slows down the digestion of carbs and sugar, making it harder for glucose to reach your bloodstream.

Here’s How GlucoBurn Works:

Just take one capsule with each meal. You’ll receive an optimal dose of the pure form of all four nutrients. Their effectiveness is supported by over 25 scientific research studies, including 11 randomized controlled trials, the gold standard of scientific research.

These clinical findings show that the four ingredients in **Glucoburn**:

- ✓ Support **healthy blood sugar metabolism**
- ✓ **Reduce blood sugar spikes** after meals
- ✓ Support **healthy fasting blood sugar** levels
- ✓ Support **healthy HbA1c** levels
- ✓ **Stimulate insulin** release
- ✓ **Mimic** naturally occurring insulin

YES! You can do all these things with **Glucoburn**. With blood sugar in the normal range, you’ll also enjoy better concentration, more energy, and a brighter mood. Put **Glucoburn** to the test, and you’ll be convinced.



Get GlucoBurn Today!
Glucoburn.com/NHC3

For Faster Service, call 1-888-309-0629 Monday-Friday 7 a.m. to 6 p.m. CST • Saturday-Sunday 8 a.m. to 5 p.m. CST

Q&A

Q: How do I know if I have a food sensitivity? — Michael R.

A: Food sensitivities can be tricky because they're often subtle and delayed. Unlike a true food allergy — which usually causes an immediate and obvious reaction — sensitivities may show up hours later or even the next day. That delay makes it much harder to connect symptoms to a specific food.

Common signs include bloating, reflux, irregular bowel movements, headaches, joint discomfort, skin irritation, sinus congestion, fatigue, or brain fog. Sometimes the symptoms aren't dramatic — they're just persistent. People often assume they're “normal” or unrelated to diet, when in reality the immune system may be reacting quietly in the background.

Because the response can be delayed, keeping track mentally is difficult. That's why a structured elimination approach is usually more helpful than guessing. Removing common triggers — such as gluten, dairy, soy, and processed sugars — for several weeks, and then reintroducing them one at a time, often reveals patterns much more clearly than blood testing alone.

Food sensitivities don't affect everyone. But when they are present, identifying them can lower inflammatory signaling and improve digestion, energy, and even joint or skin symptoms. Paying attention to consistent patterns over time often provides the clearest answers.

Q: Why did my blood pressure suddenly increase even though I haven't changed much? — Susan M.

A: Blood pressure can shift for many reasons — some obvious, and some much more subtle. Stress is one of the most common drivers. Even if your routine hasn't changed dramatically, chronic low-grade stress can raise cortisol and activate the nervous system, which in turn increases blood pressure. Poor sleep can have a similar effect. Just a few weeks of fragmented or shortened sleep can make blood pressure harder to regulate. There are also quieter contributors. Gradual weight gain — especially around the abdomen — can increase insulin resistance, which affects how the kidneys handle sodium and fluid balance. Even small changes in abdominal fat can influence pressure inside the arteries. Medication adjustments, dehydration, increased alcohol intake, or hormonal fluctuations can also play a role.

Rather than focusing only on the number itself, it's often helpful to look at patterns: sleep quality, stress load, meal timing, processed food intake, activity level, and waist-to-height ratio. Sometimes what feels like “nothing has changed” is actually a series of small shifts that add up over time.



Q: Do I need a vitamin C supplement if I eat healthy? — Mary R.

A: If you're eating a wide variety of non-starchy vegetables daily, you may already be getting adequate vitamin C. Bell peppers, broccoli, Brussels sprouts, leafy greens, and cabbage are all excellent sources — often providing more vitamin C per serving than fruit, without the sugar load.

Vitamin C works best in its natural context — alongside flavonoids and other plant compounds that enhance its effectiveness. That's one reason I prefer food sources first. Nutrients rarely work in isolation in the body, and whole foods provide a more balanced delivery system.

A basic multivitamin that provides around 100% of the daily value can serve as nutritional insurance. Higher doses may be useful temporarily during illness or periods of increased stress, but megadosing long term is usually unnecessary. The goal is variety. When vegetables are abundant and diverse, vitamin C tends to take care of itself.

Do you have a question for Dr. Marlene?

Send your health-related questions to drmarlene@naturalhealthconnections.com. Please include your first name and the initial of your last name. Although she cannot answer each question directly, Dr. Marlene will select a few in each newsletter and will address other questions and concerns in articles in future issues. Answers are intended for educational purposes only and should not be viewed as medical advice. If you need help with your subscription or have questions about Primal Health supplements, email support@primalhealthlp.com or call 877-300-7849.