DR. RITAMARIE LOSCALZO
MS, DC, CCN, DACBN

Eating for Bone Health

FOR STRONG BONES THAT LAST A LIFETIME!

This edition, dated **June 2, 2022,** was published in the United States of America by Dr. Ritamarie Loscalzo.

DrRitamarie@DrRitamarie.com

Disclaimer

The techniques and advice described in this book represent the opinions of the author based on her training and experience. The author expressly disclaims any responsibility for any liability, loss or risk, personal or otherwise, which is incurred as a result of using any of the techniques, recipes or recommendations suggested herein.

The responsibility for the consequences of your use of any suggestion or procedure described hereafter lies not with the authors, publisher or distributors of this book. This book is not intended as medical or health advice. If in any doubt, or if requiring medical advice, please contact the appropriate health professional. We recommend consulting with a licensed health professional before making major diet and lifestyle changes.

If you enjoy the information in this program, we would like to encourage you to show your support by sharing your testimonial with us, sharing our website with your friends and family, and supporting our continued work by considering our other programs and products.

Eating for Bone Health:
For Strong Bones That Last a Lifetime

Bone Metabolism Basics

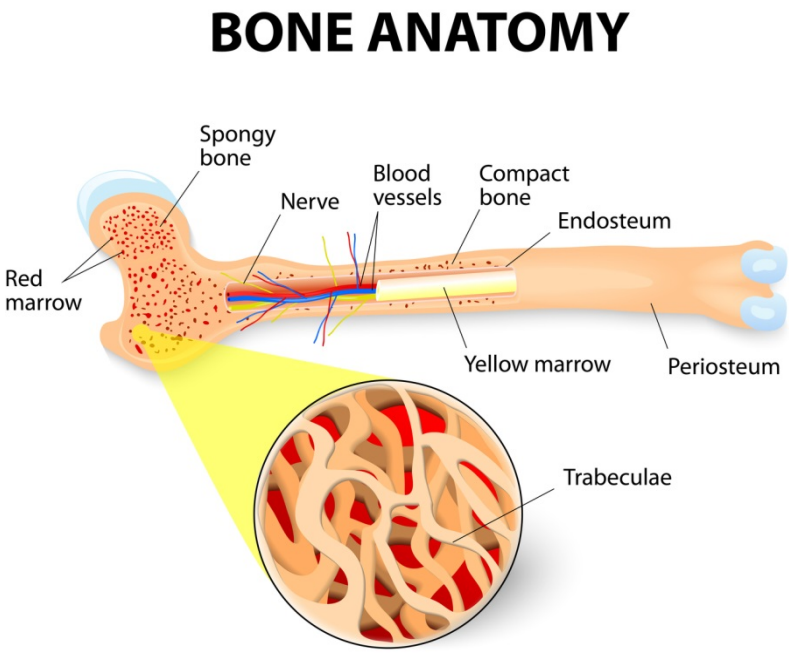
Bones are supposed to be hard to break. They're supposed to last a lifetime. Unfortunately, unless you know how to take care of your bones, things can go awry and they may become brittle and prone to fracture.

According to the National Osteoporosis Foundation, 55% of people over 50 have osteoporosis and 80% of them are women. And a whopping 75% of people over age 70 have osteoporosis. The cost of weak bones is staggering, both financially and in loss of quality of life.

A big part of the osteoporosis epidemic is the overly processed, nutrient-depleted diet that most people in the modern world consume. Add to the nutritional deficiencies and excesses a sedentary lifestyle and stress, and you have a prescription for osteoporosis.

Protecting your bones needs to become a priority in your earlier years so you don't become a statistic in your later years.

Most people don't realize it, but bone is actually living tissue containing a plethora of minerals. They think their bones are static rather than ever changing.



Normal bone metabolism consists of osteoclast activity, which breaks down bone and frees the minerals contained into your blood stream, followed by osteoblast activity, which creates new bone. This break and build cycle allows you to continuously have fresh new bone.

Bone growth usually stops after puberty, but because of the balance of interaction between osteoblasts and osteoclasts, your bones are ever changing. Every 10 years or so, you have a completely new skeleton.

When the rate of osteoclastic activity (bone breakdown), exceeds the osteoblastic activity (bone building), you're in trouble.

The good news about bones is that because they are a living tissue, a diagnosis of osteopenia does not mean you will progress to osteoporosis. And even if you have osteoporosis, it need not be permanent. Many women (and men, too) have reversed their osteoporosis by making diet and lifestyle changes that promote healthy bone.

The foods, herbs, recipes, and nutrients presented here, when incorporated as a regular part of your life -- in combination with avoiding the bone weakening foods and substances, exercising, and minimizing your stress -- will contribute to a long and active life for you and your bones.

Bone Heath: Assessment

To determine the current state of your bones and predict the future of your bone health, there are a number of assessments available.

- **DEXA scan:** A kind of x-ray that measures the density of your bone. You get 2 scores. The T-score compares you to a healthy 30-year-old and the Z-score compares you to others your age. Since osteoporosis is so common, being average for your age may mean you have osteoporosis if you're over 50. A really good score is 0 or higher. Less than -1 is considered osteopenia or low bone density. Below -2.5 is considered osteoporosis.
- **NTx urine test (N-telopeptides):** A urine test that measures the rate of bone breakdown. This test can be ordered online and done at home. If your DEXA is normal and your NTX indicates a greater than normal rate of bone resorption, you are on your way to osteoporosis unless you intervene with diet, exercise, and nutritional supplementation. You can order through Direct Labs: http://www.drritamarie.com/go/DirectLabs
- **Dpd urine marker of bone resorption**: Similar to NTX and requires a doctor's order.

Other blood tests that can give important information about your risk of developing osteoporosis:

- **Vitamin D 25(OH)D blood test (D3):** Even though the reported "normal" range is very wide, from 30 to 100 ng/mL, we now know that anything less than 32 ng/mL is likely to seriously limit calcium absorption and lead to bone loss. Ideal range appears to be 75 to 100 ng/mL.
- **Intact parathyroid hormone blood test (iPTH):** The parathyroid gland controls calcium absorption and abnormal parathyroid hormone levels reflect altered calcium metabolism and increased risk of bone loss.
- **Ionized calcium test:** A possible indirect indicator of excessive parathyroid hormone activity.
- **24-hour urine calcium excretion test results:** Calcium loss of more than 250 mg per 24 hours is higher than recommended and may indicate bone resorption.
- **Thyroid tests:** Thyroid stimulating hormone (TSH), T3 and T4. Excess thyroid hormone leads to bone loss.
- **Free cortisol test (blood or saliva):** Excess cortisol, the stress hormone secreted by your adrenals, can contribute to bone loss.
- **DHEA test (blood or saliva):** Low DHEA can contribute to bone loss.
- **C-reactive protein test - high sensitivity (CRP-hs):** High levels of CRP-hs, a marker of inflammation, are correlated with lower bone density.

- **Homocysteine test:** Normal levels of homocysteine in the blood range from 5 to 15 mM/L. For bone health, it's best to have CRP <8.
- **Celiac disease and gluten sensitivity test:** There is a high correlation between gluten intolerance and bone loss. The most sensitive test for gluten intolerance is a stool test for IgA antibodies.
- **Sex hormone tests:** Imbalances in estrogen, progesterone, and testosterone can contribute to bone loss. In particular, testing estrogen metabolites offers a good screening for osteoporosis risk.

Bone Health: Avoid Bone-Weakening Foods

To help strengthen your bones, one of the first steps is to remove the foods that are weakening and damaging your bones. Here is a list of foods to avoid/eliminate:

- **Salt:** For every 2,300 mg of sodium you take in, you lose about 40 mg of calcium. That may not seem like much, but over time this amounts to a considerable bone loss.
- **Soft drinks:** The carbonation from phosphoric acid increases calcium excretion. The sugar depletes your B vitamins.
- **Caffeine:** For every 100 milligrams of caffeine, the amount in a small to medium- sized cup of coffee, you lose 6 milligrams of calcium. Coffee, tea, and colas containing caffeine are also acidifying to your body, throwing off the delicate balance of acid-alkaline and leading to bone breakdown.
- **Alcohol:** Alcohol blocks the absorption of calcium and other bone-fortifying minerals you eat. Heavy drinking can even disrupt the bone remodeling process by preventing osteoblasts, the bone-building cells, from doing their job. So not only do bones become weaker, but when you do suffer a fracture, alcohol can interfere with healing.

- **Hydrogenated oils:** The process of converting liquid vegetable oil into solid oils, called hydrogenation because hydrogen is used to saturate the carbon bonds, destroys the vitamin K naturally found in the oils. Vitamin K is essential for strong bones.
- **Heated and oxidized oils:** Conventional methods of oil extraction results in the exposure of the delicate bonds to heat, air, and light, resulting in oxidation of the oils. In addition to the destruction of nutrients, this process this triggers a cascade of free radical activity that causes cell destruction.
- **Sugar:** Ingesting sugar has been shown to deplete your body of calcium. In one study, administering 100 grams of sugar in the form of sucrose to healthy volunteers caused a significant increase in the urinary excretion of calcium. Sugar robs your body of essential nutrients, creates a surge of insulin and cortisol, and robs your bones of calcium. Yudkin found that ingesting large amounts of sucrose by healthy volunteers causes a significant increase in the fasting serum cortisol level. Cortisol is the primary corticosteroid secreted by the adrenal gland. Although corticosteroids have important biological functions, an excess of these hormones can cause osteoporosis. Yudkin's work demonstrated that eating too much sugar is similar to taking a small amount of cortisone, which could cause your bones to become thinner.

- **Gluten:** The protein found in wheat, rye, barley, kamut, spelt, and triticale does more than create intestinal damage in sensitive individuals. Studies show a very strong correlation between bone loss and gluten sensitivity. The effect is partly due to inflammation and damage to the small intestine and the resultant malabsorption and partly due to the acidifying effect of gluten and the immune mediated inflammation.

- **Refined grains:** When whole grain is refined to its white counterpart, the following percentages of selected vitamins and minerals are lost: vitamin B6 (72%), folic acid (67%), calcium (60%), magnesium (85%), manganese (86%), copper (68%), zinc (78%). Since grains make up about 30% of the average diet, consumption of refined grains would have a substantial impact on the total daily intake of micronutrients (vitamins and minerals). Because nearly 50% of the typical American diet is composed of nutrient-depleted sugar and refined grains, the intake of many important micronutrients is probably much lower than it was during the previous century.
- **Dairy:** The calcium in dairy foods is out of balance with phosphorus, so much of it will be incompletely absorbed or incorrectly assimilated. In addition, the high protein content in dairy products triggers the release of calcium from the bones to buffer the acidity. A National Dairy Council study confirmed this. Researchers supplemented a test group with three 8-ounce glasses of milk a day, which significantly increased bone fracture rates compared to a control group that didn't receive the supplementation. The researchers concluded the rise in fractures was most likely due to a 30% increase in protein intake from cow milk (Recker & Heaney, 1985).

- **High protein foods:** According to research done at the University of Wisconsin by Drs. Linkswiler and Lutz, a diet with a high protein content acidifies the blood as much as sugar does, and acidified blood will dissolve calcium from the bones. In one study conducted by Dr. Lutz, people on a diet that included 102 grams of protein (which is average) excreted almost twice as much calcium as those consuming only the RDA of 44 grams. Because the calcium intake of both groups was the same, the excreted calcium had apparently been removed from the bones. The researchers suggested lowering the intake of protein to prevent calcium loss.

- **Nightshades:** This group includes tomatoes, potatoes, eggplant, peppers, and tobacco. The evidence for nightshades contributing to bone loss is controversial. The alkaloids in these plants are said to affect the calcium balance in some way. One researcher has reported that cattle that graze on one variety of nightshades develop malformed skeletons and become unable to walk, grazing on their knees. However, there are no conclusive tests in humans. It does appear that certain people are sensitive to nightshades and notice that joint pains disappear when they remove them from the diet. It's worth testing especially if you happen to have arthritis or know you're sensitive to nightshades.
- **Vitamin A overload:** While vitamin A is an important nutrient for bone health, too much can actually have an adverse effect. Studies show that women whose intake was higher than 5,000 IUs had more than double the fracture rate of women whose intake was less than 1,600 IUs a day.

Bone Health: The Importance of Acid/Alkaline Balance

To strengthen your bones, it's important to change your diet. One of the most important steps is to follow a balanced acid/alkaline diet.

For a detailed review of the effect of acid alkaline balance in your diet and lifestyle on the health of your bones, please read this detailed article, written by an MD and medical anthropologiest, from the Journal of Integrative Medicine.
http://www.drritamarie.com/go/AcidAlkalineJOIM2000

In summary, the internal environment of your body is maintained at a slightly alkaline pH, between 7.35 and 7.45. Your blood pH must be maintained within a very narrow range or serious illness and death can result.

Your enzymatic, immunologic, and repair mechanisms **all function their best in an alkaline environment.** Your metabolic processes -- the processes of living, tissue repair, and the metabolism of food -- produce a great deal of acid. In order to maintain your internal alkaline state, you need oxygen, water, and acid-buffering minerals available as you are eliminating waste products.

Many factors relating to lifestyle and environment also influence acid-alkaline balance.

For example, when you are under tremendous stress, your acidity will likely increase because of the demands on your cells to become more active. Chronically hectic schedules, inadequate sleep and rushed, imbalanced meals can all contribute to this unhealthful condition.

To regain the life-supporting alkaline state, acids from all sources must be buffered or neutralized by combining with alkaline minerals. The alkaline minerals include calcium, magnesium, potassium, sodium, chromium, selenium, and iron. The most readily available pool of alkaline minerals is in the bone, and as your body works to maintain optimal blood pH, minerals are depleted from the bone, leading to increased risk of osteoporosis.

Dr. Susan Brown, leading researcher in the area of osteoporosis, and author of the book, *Better Bones, Better Body*, www.BetterBones.com, has found that the single most important factor in changing your bone density and decreasing your osteoporosis risk is maintaining optimal pH through an alkaline diet and lifestyle.

According to Dr. Russell Jaffee, bone is very sensitive to even small changes in pH. As little as a 0.1 decrease in pH greatly stimulates osteoclastic activity and inhibits osteoblastic activity, leading to a loss of bone.

To preserve the health of your bone, get familiar with the alkaline/acid rating of common foods and target to eat a diet that's 75-80% alkaline forming foods. If you already have been diagnosed with osteopenia or osteoporosis, it's best to target 80% or more alkaline foods until you've reversed the condition. In the resource below, you'll find **the helpful acid/alkaline food chart that you can print and put on your fridge, recipes, and a pH tracking chart:** http://www.drritamarie.com/go/AlkalineDiet

Food & Chemical Effects on Acid / Alkaline Body Chemical Balance

Most Alkaline	More Alkaline	Low Alkaline	Lowest Alkaline	Food Category	Lowest Acid	Low Acid	More Acid	Most Acid
• Baking Soda	Spices/Cinnamon Valerian Licorice • Black Cohush	• Herbs (most): Arnica, Bergamot, Echinacea, Chrysanthemum, Ephedra, Feverfew, Goldenseal, Lemongrass	White Willow Bark Slippery Elm Artemesia Annua	Spice/Herb	Curry	Vanilla Stevia	Nutmeg	Pudding/Jam/Jelly
Sea Salt Mineral Water	• Kambucha	• Green or Wu Tea	*Sulfite* Ginger Tea	Preservative Beverage	*MSG* *Kona Coffee*	*Benzoate* *Alcohol* Black Tea	*Aspartame* *Coffee*	*Table Salt (NaCl)* Beer; *'Soda'* Yeast/Hops/Malt
	Molasses Soy Sauce	Rice Syrup Apple Cider Vinegar	• Sucanat • Umeboshi Vinegar	Sweetener Vinegar	Honey/Maple Syrup Rice Vinegar	Balsamic Vinegar	*Saccharin*	Sugar/Cocoa White/Acetic Vinegar
• Umeboshi Plum		• Sake	• Algae, Blue-Green	Therapeutic		*Antihistamines*	*Psychotropics*	*Antibiotics*
			• Ghee (Clarified Butter) Human Breast Milk	Processed Dairy Cow/Human Soy Goat/Sheep	Cream/Butter Yogurt Goat/Sheep Cheese	Cow Milk Aged Cheese Soy Cheese Goat Milk	• Casein, Milk Protein, Cottage Cheese New Cheese Soy Milk	*Processed Cheese* Ice Cream
		• Quail Egg	• Duck Egg	Egg	Chicken Egg			
				Meat Game Fish/Shell Fish	Gelatin/Organs • Venison Fish	Lamb/Mutton Boar/Elk-Game Meat Shell Fish/Mollusks	Pork/Veal Bear • Mussel/Squid	Beef Lobster
				Fowl	Wild Duck	Goose/Turkey	Chicken	• Pheasant
			Oat 'Grain Coffee' • Quinoa Wild Rice Japonica Rice	Grain Cereal Grass	• Triticale Millet Kasha • Amaranth Brown Rice	Buckwheat Wheat • Spelt/Teff/Kamut Farina/Semolina White Rice	Maize Barley Groat Corn Rye Oat Bran	Barley *Processed Flour*
Pumpkin Seed *Hydrogenated Oil*	Poppy Seed Cashew Chestnut Pepper	Primrose Oil Sesame Seed Cod Liver Oil Almond • Sprout	Avocado Oil Seeds (most) Coconut Oil Olive Oil Linseed/Flax Oil	Nut Seed/Sprout Oil	Pumpkin Seed Oil Grape Seed Oil Sunflower Oil Pine Nut Canola Oil	Almond Oil Sesame Oil Safflower Oil Tapioca • Seitan or Tofu	Pistachio Seed Chestnut Oil *Lard* Pecan Palm Kernel Oil	*• Cottonseed Oil/Meal* Hazelnut Walnut Brazil Nut *Fried Food*
Lentil Broccoflower • Seaweed: Nori/Kombu/Wakame/Hijiki Onion/Miso • Daikon/• Taro Root • Sea Vegetables (other) • Burdock/• Lotus Root Sweet Potato/Yam	Rabbabi Parsnip/Taro Garlic Asparagus Kale/Parsley Endive/Arugula Mustard Greens Ginger Root Broccoli	Potato/Bell Pepper Mushroom/Fungi Cauliflower Cabbage Rutabaga • Salsify/• Ginseng Eggplant Pumpkin Collard Greens	Brussel Sprout Beet Chive/Cilantro Celery/Scallion Okra/Cucumber Turnip Greens Squash Lettuce Jicama	Bean Vegetable Legume Pulse Root	Spinach Fava Bean Kidney Bean Black-eyed Pea String/Wax Bean Zucchini Chutney Rhubarb	Split Pea Pinto Bean White Bean Navy/Red Bean Aduki Bean Lima or Mung Bean Chard	Green Pea Peanut Snow Pea Legumes (other) Carrot Chick Pea/Garbanzo	Soybean Carob
Lime Nectarine Persimmon Raspberry Watermelon Tangerine Pineapple	Grapefruit Canteloupe Honeydew Citrus Olive • Dewberry Loganberry Mango	Lemon Pear Avocado Apple Blackberry Cherry Peach Papaya	Orange Apricot Banana Blueberry Pineapple Juice Raisin, Currant Grape Strawberry	Citrus Fruit Fruit	Coconut Guava • Pickled Fruit Dry Fruit Fig Persimmon Juice • Cherimoya Date	Plum Prune Tomato	Cranberry Pomegranate	

• Therapeutic, gourmet, or exotic items *Italicized items are NOT recommended.*

Prepared by Dr.Russell Jaffe, Fellow, Health Studies Collegium. Reprints available from ElISA/ACT Biotechnologies, 14 Pidgeon Hill, #300, Sterling,VA 20165. Sources include USDA food data base (Rev 9 & 10), *Food & Nutrition Encyclopedia; Nutrition Applied Personally* by MWalcoski; *Acid & Alkaline* by H.Albert. Food growth, transport, storage, processing, preparation, combination, & assimilation influence effect intensity. Thanks to Hank Liers for his original work. (Rev 6/01)

Foods That Nourish You "To the Bone"

Not only will eating a more alkaline diet improve your bone heath, certain foods will also help boost your bone health and strength.

My Vote for the Top 10 Bone-Strengthening Foods

- ❑ Prunes**
- ❑ Green leafy vegetables
- ❑ Seeds, especially sesame and pumpkin
- ❑ Almonds
- ❑ Sea veggies, especially kelp
- ❑ Avocado
- ❑ Cruciferous veggies: broccoli, cabbage, Brussels sprouts, kale, cauliflower
- ❑ Sprouts, especially broccoli sprouts
- ❑ Chia seeds
- ❑ Figs

** According to research by Bahram H. Arjmandi, PhD, RD, at Florida State University in Tallahassee, 100 grams of prunes (dried plums), each day, increases bone density. This amounts to about 9-10 prunes.

Foods to Include Regularly for Stronger Bones

- ❑ Almonds
- ❑ Amaranth
- ❑ Apricots
- ❑ Avocado
- ❑ Bananas
- ❑ Beet greens
- ❑ Black bean
- ❑ Broccoli
- ❑ Brown rice
- ❑ Cabbage
- ❑ Carrot
- ❑ Cashews
- ❑ Cauliflower
- ❑ Celery
- ❑ Chia seeds
- ❑ Chick peas
- ❑ Coconut
- ❑ Collard greens
- ❑ Cucumber
- ❑ Dandelion greens
- ❑ Figs
- ❑ Garbanzo beans or hummus
- ❑ Grapes
- ❑ Green leafy veggies
- ❑ Hazelnuts
- ❑ Hijiki
- ❑ Kale
- ❑ Kelp
- ❑ Kidney beans
- ❑ Kombu
- ❑ Lentils
- ❑ Lima beans
- ❑ Miso
- ❑ Nori
- ❑ Nuts
- ❑ Oats
- ❑ Okra
- ❑ Onions
- ❑ Oranges
- ❑ Parsley
- ❑ Peaches
- ❑ Pecans
- ❑ Pinto beans
- ❑ Pistachios
- ❑ Prunes
- ❑ Quinoa
- ❑ Raisins
- ❑ Sea veggies
- ❑ Seeds
- ❑ Sesame seeds
- ❑ Spinach
- ❑ Spirulina
- ❑ Sprouts
- ❑ Sunflower Seeds
- ❑ Turnip greens
- ❑ Wakame
- ❑ Walnuts
- ❑ Watercress

Bone Building Herbs

Taken on a regular basis the herbs below have been shown to increase bone density. My personal favorite bone building combination is equal parts nettles, horsetail, and alfalfa.

- ❑ Nettles
- ❑ Horsetail
- ❑ Alfalfa
- ❑ Oatstraw
- ❑ Red raspberry
- ❑ Peppermint
- ❑ Red clover

I get the dried herbs, grind them into a powder in my blender, then add 1-2 teaspoons of each to my smoothies, sauces, soups, nut and seed pates, and even my desserts (peppermint is delicious added to smoothies and desserts). I grind a week's supply, combine, and store in a dark glass container.

Bone Building Nutrient Supplementation Guidelines

The best way to get your nutrients is from food; however, sometimes food is not enough and you need to supplement, especially if you've been diagnosed with osteoporosis. If you choose the supplementation route, the following are generally recommended supplementation doses.

Nutrients	Daily Intake for Optimum Bone Health	Most Alkalizing Food Sources
Minerals		
Boron	3-5 mg	Almonds, dried apricots, avocado, raisins, dates, grapes, peaches, oranges, pears, bananas, broccoli, carrots, celery, onions
Calcium	800-1200 mg (no more than 500-700 mg supplemental)	cabbage, broccoli, spinach, lima beans, collard greens, kale, mustard greens, sesame seeds, flax seeds, almonds
Chromium	200-1000 mcg	Romaine lettuce, raw onions, tomatoes
Copper	1-3 mg	Almonds, sunflower seeds, sesame seeds, pumpkin seeds, mushrooms, tomatoes
Magnesium	400-800 mg	Spinach, pumpkin seeds, almonds, lima beans, Swiss chard, bananas, plantains
Manganese	2-10 mg	Artichokes, spinach, pineapples, sweet potatoes, lima beans
Phosphorus	800-1200 mg	Deficiency is rare as it's found in meat, milk, and soft drinks
Potassium	4000-6000 mg	Swiss chard, romaine lettuce, crimini mushrooms, spinach, celery, mustard greens, fennel, broccoli, winter squash, cucumbers, collard greens
Silica	5-20 mg	Horsetail, cucumbers, bell peppers, tomatoes, romaine lettuce, spinach, beets, pumpkins, carrots, onions, cabbage, cherries, apples, oranges, raisins, almonds
Strontium	3-30 mg	Green leafy vegetables, whole grains

Nutrients	Daily Intake for Optimum Bone Health	Most Alkalizing Food Sources
Zinc	12-30 mg	Pumpkin seeds, almonds, chick peas, peanuts, cashews, tahini, dark chocolate
Vitamins		
Vitamin A	5000 iu	
Vitamin B12	150-1000 mcg	Supplement
Vitamin B6	25-50 mg	Spinach, bell peppers, turnip greens, garlic, cauliflower, cayenne, celery, broccoli, crimini mushrooms, kale, collard greens
Vitamin B9 (Folic acid)	400-1000 mcg	All leafy greens, broccoli, mushrooms, sprouted legumes and fresh peas
Vitamin C	500-3000 mg	Oranges, grapefruits, lemons, limes, tangerines, strawberries, raspberries, pineapple, watermelon, papaya, guava, kiwi, cantaloupe, cabbage, tomatoes, broccoli, cauliflower, sweet red bell peppers, Brussels sprouts, parsley.
Vitamin D	800-20 000 iu as indicated	Sunshine
Vitamin K	**K1:** 250-1000 mcg **K2:** 45-180 mcg	Spinach, Brussels sprouts, green beans, asparagus, broccoli, green peas, romaine lettuce, bell peppers kale, Swiss chard, watercress, broccoli, parsley
Other Nutrients	**Daily Intake for Optimum Bone Health**	**Most Alkalizing Food Sources**
Fats: Omega-3	Approximately 6 g of ALA, found in seeds or 500 mg combined EPA /DHA found in algae and fish	Chia, hemp seed, flax seed, walnut, blue green algae
Protein	60-100 g per body weight	Greens, seeds, animal flesh
Probiotics	50 billion organisms per day	Kefir, sauerkraut, kombucha

Additional Bone Health Reading and Resources

- Articles by Dr. Susan E. Brown, PhD, www.BetterBones.com
- Many references for the effect of acid alkaline balance on bone health: http://www.drritamarie.com/go/BetterBonesReferences
- http://www.drritamarie.com/go/SaveOurBones
- http://www.drritamarie.com/go/ProblemsWithDairyProducts
- http://www.drritamarie.com/go/PrunesStrongBones
- Recker, R. R., & Heaney, R. P. (1985). The effect of milk supplements on calcium metabolism, bone metabolism and calcium balance. American Journal of Clinical Nutrition, 41, 254–263.
- Calcium metabolism in postmenopausal and osteoporotic women consuming two levels of dietary protein. Lutz J, Linkswiler HM. Am J Clin Nutr. 1981 Oct;34(10):2178-86. http://www.drritamarie.com/go/CalciumMetabolism
- *Vitamin D and Fracture Reduction: An Evaluation of the Existing Research*, Alternative Medicine Review, vol. 13, no. 1, 2008
- *Eight Keys for Preventing Osteoporosis and Building Bone Strength*, The Journal of the American Nutraceutical Association, vol. 10, no. 2, 2007
- *Pilot Clinical Study of Dietary Supplement, Young Bones™ (A Traditional Chinese Herbal Formula) for Improvement of Aging, Including Bone Mineral Loss, Pain, Mobility and Nocturnal Polyuria in Women*. http://www.drritamarie.com/go/YoungBones
- *Acid-Alkaline Balance and Its Effect on Bone Health*. International Journal of Integrative Medicine. Nov./Dec. 2000, with Russell Jaffe, M.D., Ph.D. http://www.drritamarie.com/go/AcidAlkalineJOIM2000Text
- A Pilot Study Comparing Advacal (AAACA) and Calcium Citrate Supplementation in Menopausal U.S. Women. http://www.drritamarie.com/go/CalciumCitrateSB
- Backman, T. (1999). Acid-base balance, dentinogenesis, and dental caries. Faculty of Medicine, University of Oulu. http://www.drritamarie.com/go/AcidBaseBalanceTB
- Barzel, U.S., Massey, L.K. (1998). Excess dietary protein can adversely affect bone. J Nutr 128(6): 1051-3. PMID: 9614169
- Brandao-Burch, A., J.C. Utting, I.R. Orriss, et al. (2005). Acidosis inhibits bone formation by osteoblasts in vitro by preventing mineralization. Calcif Tissue Int 77: 167- 174.

Suppliers of Herbs

- Mountain Rose Herbs: http://www.mountainroseherbs.com
- Frontier Herbs: http://www.frontiercoop.com
- Herbalist and Alchemist – a formula called Osteoherb: http://www.herbalist-alchemist.com
- Health Force Nutritionals – excellent green powders and whole food raw supplements: http://www.drritamarie.com/go/healthforce

Bone Boosting Recipes

Orange Arugula Chipotle Bone Boosting Soup

Ingredients:

- 1 orange
- 2 cups arugula
- 1 teaspoon ume vinegar
- 2 tablespoons sesame seeds
- 1 pinch chipotle powder
- 1 teaspoon maca powder
- 1 teaspoon nettles
- 1 teaspoon horsetail
- 1 teaspoon alfalfa

Directions:

Blend all ingredients in a high-speed blender until smooth.

Strengthen My Bones Green Smoothie

Ingredients:

- 1/2 cup water
- 2 tablespoons sesame seeds
- 1 tablespoon lime juice
- 1 banana
- 2 cups kale leaves
- 1/8 teaspoon sea salt
- 1 teaspoon nettles
- 1 teaspoon alfalfa
- 1 teaspoon horsetail
- 1 cup frozen pineapple
- 1 cup frozen mango

Directions:

1. Blend all ingredients, except the frozen fruit, in a high speed blender until smooth.
2. Add the frozen fruit, and blend until smooth.

Bones Don't Crack Crackers

Ingredients:

- 1/2 cup chia seeds, soaked in 2 cups water for at least 4 hours
- 1/2 cup onion, roughly chopped
- 1 large tomato, roughly chopped
- 4 cups green cabbage, finely shredded
- 2 stalks celery, chopped
- 1 teaspoon sea salt
- 1 tablespoon lemon juice
- 1 teaspoon dried dill
- 1/2 teaspoon garlic granules
- 2 teaspoons nettles
- 2 teaspoons horsetail
- 2 teaspoons alfalfa
- 3 cups kale, roughly chopped
- 1/2 cup sunflower seeds

Directions:

1. Process all ingredients, except the kale and sunflower seeds, until chunky.
2. Add the kale and sunflower seeds and pulse just a few times until the kale is just chopped into small confetti and the sunflower seeds are barely chopped.
3. Spread 3 cups on a non-stick sheet on a dehydrator tray.
4. Score into desired shapes.
5. Dehydrate at 135°F for 45 minutes.
6. Turn the dehydrator down to 105°F degrees and dehydrate over night or for 8 more hours.
7. Remove non-stick-sheet and dehydrate until crispy (total around 24 hours).
8. Store them in an air tight container in the freezer.

Bone Building Brownies

Ingredients:

- 3 cups dates
- 1 1/2 cups pitted prunes
- 1/4 teaspoon sea salt
- 3-4 drops essential oil, peppermint or orange
- 2 teaspoons ground vanilla beans
- 3/4 cup lucuma powder
- 6 tablespoons carob powder
- 2 teaspoons nettles
- 2 teaspoons alfalfa
- 2 teaspoons horsetail

Directions:

1. Grind the nettles, alfalfa, and horsetail in a coffee grinder and set aside.
2. Process dates, prunes, salt, essential oil, and vanilla in a food processor just until chopped.
3. Add the lucuma powder, carob powder, nettles, alfalfa, and horsetail. Process until mixed.
4. Press mixture into a parchment lined 8”x8” glass pan.
5. Chill for at least 4 hours. Remove from pan by lifting out the parchment paper and slice.

Skeleton Supporting Savory Sesame Sauce

Ingredients:

- 3 pitted prunes, soaked 30 minutes
- 3/4 cup prune soak water
- 1 1/4 teaspoon sea salt
- 1/4 teaspoon toasted sesame oil
- 1/2 teaspoon garlic granules
- 3/4 - 1 teaspoon chili powder
- 1 1/2 teaspoons onion powder
- 1/4 cup tahini
- 2 tablespoons lemon juice

Directions:

1. Blend the prunes, water, salt, sesame oil, garlic granules, chili powder, and onion powder in a high-speed blender until smooth.
2. Add the tahini and blend until smooth.
3. Add the lemon juice and blend just until combined.

Bone Building Super Salad: Bok Choy & Mushrooms

Ingredients:

- 8 oz. mushrooms, sliced
- 1 drop toasted sesame oil
- 1/4 teaspoon sea salt
- 1 tablespoon lemon juice
- 1 large bok choy
- 1 tablespoon raw sesame oil
- 4 drops toasted sesame oil
- 1 tablespoon lemon juice
- 1/2 teaspoon salt
- 1 teaspoon garlic granules
- 1 teaspoon onion powder
- 1/4 cup sesame seeds

Directions:

1. Gently massage the mushrooms with 1 drop of sesame oil, 1/4 teaspoon salt, and 1 tablespoon of lemon juice; set aside.
2. Slice the bok choy into thin strips.
3. Place it in a large bowl and add the raw sesame oil, 4 drops of toasted sesame oil, 1 tablespoon of lemon juice, 1/2 teaspoon salt, garlic granules, onion powder, and sesame seeds.
4. Add the marinated mushrooms and toss.

Creamy Italian Bone Boosting Soup

Ingredients:

- 1/3 cup lemon juice (1 large Meyer lemon)
- 1/2 cup sesame tahini
- 1/3 of a red bell pepper
- 1 cucumber
- 1 celery stalk
- 1/2 cup fresh basil
- 4 scallions
- 2 collard green leaves
- 1 zucchini
- 3 cups spring mix greens
- 3 broccoli stems
- 2 1/2 cups dandelion greens or arugula
- 2 cloves garlic
- 1 handful of cilantro
- 1 handful broccoli sprouts
- 1 cup cauliflower
- 2 tablespoons kelp
- 2 teaspoons nettles
- 2 teaspoons alfalfa
- 2 teaspoons horsetail
- 1 cup water, more to desired thickness
- 1 tablespoon Italian seasoning

Directions:

1. Blend the bell pepper and cucumber first.
2. Slowly add the other ingredients.
3. Blend until creamy and smooth.
4. Add water to desired thickness.
5. Adjust seasonings to desired degree of spiciness.

Note: The measurements make a full Vitamix of soup. If you have a smaller blender, cut the ingredient amounts in half.

Skeleton Strengthening Fudge Balls

Ingredients:

- 3 cups de-stemmed kale, lightly packed
- 1/8 - 1/4 teaspoon sea salt
- 1 cups walnuts
- 1 cup hemp seeds
- 1 cup almonds, preferably soaked and dehydrated
- 1 tablespoon ground vanilla beans
- 1/2 teaspoon mint flavoring or 3 drops mint essential oil (optional)
- 1 cup prunes
- 1/2 cup black mission figs
- 1/3 cup carob powder
- 1/3 cup raw cacao powder
- 1 cup finely ground dried coconut
- 2 teaspoons nettles
- 2 teaspoons alfalfa
- 2 teaspoons horsetail
- 1 tablespoon chlorella, blue green algae, or spirulina
- 1/4 cup sesame seeds

Directions:

1. Process the kale and salt in a food processor until chopped.
2. Remove the kale to a bowl and set aside.
3. Process the walnuts, hemp, almonds, and vanilla until finely ground, being careful not to over process into nut butter.
4. Add the prunes, figs, and kale and process until the mixture begins to stick together.
5. Add the carob and cacao powder and process until it is incorporated.
6. Add coconut and process until dough begins to hold together. Add more if needed to allow the dough to be rolled without being too sticky.
7. Shape with hands into desired sized balls.
8. Roll in sesame seeds.
9. Chill or freeze until ready to eat.

Recipe Contributors

The recipes above were developed for a live ***Raw Food University*** class by Dr. Ritamarie Loscazlo, Pamela Weems, and Karen Osborne.

www.RawFoodUniversity.com

Chef Karen Osborne

Chef Karen Osborne, a lifetime active pianist, has been preparing gourmet raw food since being introduced to it in 2001. Karen's body became her new, finely tuned instrument after experiencing the energy and great health that followed the elimination of gluten, dairy, and refined sugar from her diet and the addition of lots of greens. Karen's passionate performances now are focused on creating raw food experiences as treats of harmonic sensations, developing flavors like a symphony. From delicate to dynamic, her food is music to the palate.

Specializing in tantalizing raw versions of favorites like Tiramisu, she loves to help people with the food part of their transition to a healthy lifestyle that also includes exercise, sun, and sleep.

Karen is a graduate of both The Natural Epicurean and The Living Light Culinary Arts Institute. Karen sells her creations in the Austin, Texas area where she gives private instruction in raw food preparation, demonstrates Raw Food Joy regularly for a market in South Austin, manages Dr. Ritamarie's Co-op, and teaches classes.

Chef Pamela Weems

A special education teacher for many years, **Chef Pamela Weems** became interested in regaining her health through whole and living foods after she developed thyroid abnormalities and after a close friend of hers developed cancer. Pamela has taken food preparation classes with Dr. Ritamarie Loscalzo and through her has obtained certification as Chef and as Instructor in Alissa Cohen's Living on Live Foods courses. She enjoys making salad dressings, desserts, and snacks for family and friends.

Want to Be Part of the Movement to Reinvent Healthcare?

If so, you're joined by hundreds of health practitioners of all types, joined by a common goal—to provide the level of care people deserve and move away from the symptom-focused approach to health care and towards a system that values finding root causes and empowering people to transform their diets and lifestyles so as to remove the imbalances that create most diseases.

Visit **www.INEMethod.com** to find out how you can become part of a community of like-minded health professionals dedicated to making a difference.

And listen to the Reinvent Healthcare podcast at **www.ReinventHealthcare.com**

About Dr. Ritamarie Loscalzo, MS, DC, CCN, DACBN

Dr. Ritamarie Loscalzo is passionately committed to transforming our current broken disease-focused system into a true health care system where all practitioners are skilled at finding the root causes of health challenges and using ancient healing wisdom married with modern scientific research to restore balance.

As the founder of the Institute of Nutritional Endocrinology, Dr. Ritamarie specializes in empowering health and nutrition practitioners to identify and reverse the root causes of health issues by using the science of functional assessments and the wisdom of nature to restore balance to hormones, which control every system in the human body.

Students and graduates, as well as colleagues, refer to the Institute of Nutritional Endocrinology as the "Harvard of online functional medicine training."

Dr. Ritamarie is a licensed Doctor of Chiropractic with Certifications in Acupuncture, Nutrition, Herbal Medicine, and HeartMath ®. She's also certified as a living foods chef, instructor, and coach.

A best-selling author, speaker, and internationally recognized nutrition and functional health authority with over 30 years of clinical experience, Dr. Ritamarie offers online courses, long-distance coaching and counseling, and deeply empowering and informative live events.

To find out more about the Institute of Nutritional Endocrinology offerings, visit: http://www.INEMethod.