

NutritionallyFIT



Muscle your way to a Healthier You

By Elizabeth Eisenstadt Evans

Fueled by the huge number of citizens entering their forties and fifties, Americans, particularly Baby Boomers, are searching for physical fitness and beauty. The generation that once refused to trust anyone above thirty, Baby Boomers are notorious for trying to hang on to their youth, whether they are having their teeth whitened or their wrinkles erased.



Their desire to continue to compete on the basketball and tennis courts has fueled a multimillion-dollar industry of elective surgery to replace knees and hips as they surrender to the inevitable ravages of age. But beyond peroxide, Botox and elective surgery there is an inexpensive and medically sound way to boost your odds of staying fit well into old age—building up and preserving your muscles with exercise and appropriate nutrition.

A recent article in the *"Nutrition Action Healthletter"* serves as a wake-up call to those of us in every generation who want to stay vigorous as we age. The subject of the article was how to avoid sarcopenia—or the loss of muscle tissue in the aging process. Wasting of muscle is perhaps more widespread than we would like to think. According to the *Healthletter*, during their forties and fifties both women and men begin to lose significant muscle mass. By the age of sixty-five, an estimated forty five percent of adults have muscle loss, says writer David Schardt. He quotes Timothy Doherty, a professor at the University of Western Ontario: "For eighty to ninety percent of adults, if they don't do the right kind of physical activity regularly, they're going to end up with sarcopenia by the time they're in their sixties and seventies."

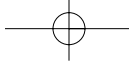
Christine Karpinski is a dietitian and exercise physiologist who is board certified in Sports Nutrition. A teacher at West Chester University, Karpinski says that without a decision to reverse the trend, men and women start to lose muscle mass as early as their thirties at a rate of three to eight percent

a decade. Reasons for muscle loss are varied. They include less ability to synthesize muscle protein as we age, too little challenging activity for muscles, gender and genetic differences, hormonal deficits, and the loss of nerve cells.

One paleontologist has a rather unique view of the problem of muscle loss. As Drexel University professor Ken Lacovara notes, "We are governed by a very ancient genetic code. Programmed to function efficiently through our reproductive years, we can then pass on our genetic code—ensuring the survival of the genes for the next generation. Our genes don't care one way or the other whether, in our more benign environment, we want to stay fit and healthy beyond our reproductive years." If our muscles atrophy after we reproduce, there's not a genetic penalty to be paid," says Lacovara, a Drexel University Associate Professor of Bioscience and Biotechnology. Interestingly enough, the mid-forties professor is a model of fitness. He lifts weights, runs, sea kayaks, mountain bikes—and is anticipating the birth of his first child." I would like to see a longer part of my child's life," he said, commenting that there's never been a time in his life when he has exercised and regretted it.

The Effects of Muscle Loss

Lose muscle tissue, and it eventually begins to have measurable consequences. Because muscle torches calories at a higher rate than fat, you may see an unhealthy rise in your weight. Gaining weight, as you also know, puts you at risk for diseases like diabetes, cancer and heart disease.



As the *Healthletter* article notes, muscles are also important in maintaining your balance-elderly people who have problems with balance are particularly vulnerable to falls. Because muscles stress bones healthy ways that make them stronger, losing muscle tissue also may put you at risk for osteoporosis.

"Malnutrition, which can lead to muscle loss, is a particular problem for the elderly", says Christine Naegle, a staff member at the Phoenixville YMCA who has worked in a hospital environment for many years. "The deterioration is sometimes really evident," says the nutritionist. "They are very lean. You can see the skin hanging off their bones, and not much muscle as a result of poor nutrition (sometimes related to chronic illness)."

After consulting with Philadelphia-area nutritionists (and one paleontologist) we have come up with some simple recommendations to keep you strong through middle age and beyond.

"RESISTANCE TRAINING is key", says Karpinski. "The most importance factor as far as muscle loss is concerned is strength training." If you have never strength-trained before, make sure you get professional instruction, she advises. "Training with weights, on machines or with resistance bands will not only add muscle, but will increase your basal metabolic rate. Those involved in resistance training increase their cardiac capacity, and positively effect their blood pressure and heart rate", says Naegle.

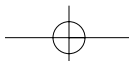
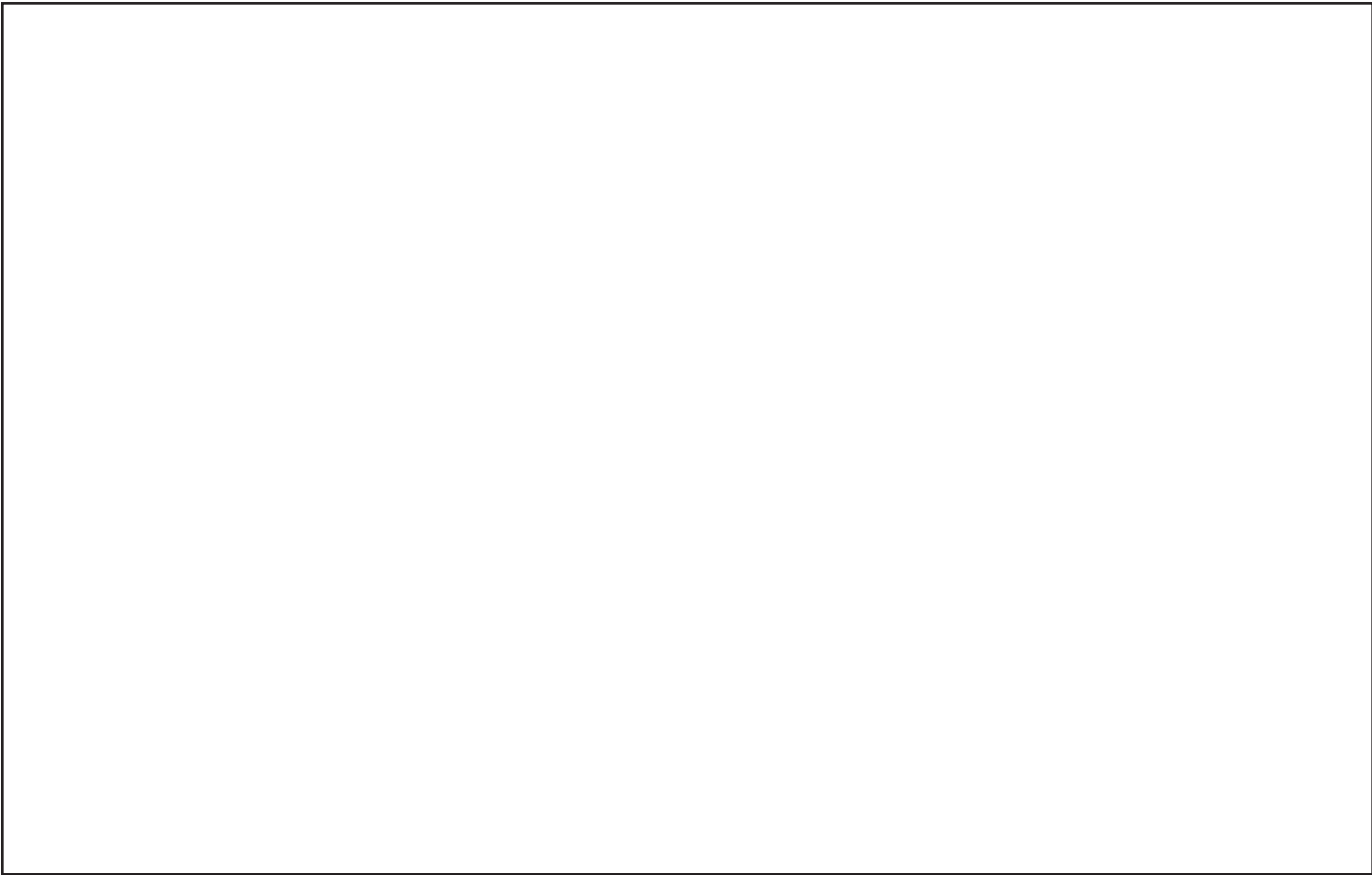
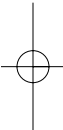
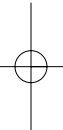
EAT ENOUGH CARBOHYDRATES. Ignore the diets that tell you to avoid carbs. According to Bryn Mawr-based Nutrition Consultant Cathy D'Orazio, who specializes in sports

nutrition, carbohydrates are the primary fuel for the body, providing it with adequate stores of glycogen (which is the way the muscles and liver store carbohydrates). If glycogen stores become depleted, the body starts burning protein from other tissues, including muscle tissue, to meet its energy needs. One loses muscle as a result and some carbs are superior to others. "You should make sure you select, natural, high fiber complex carbohydrates whenever possible instead of refined carbohydrates such as sugar and high processed foods," she notes.

PROTEIN IS CRUCIAL- "The ideal diet combines animal and plant proteins. It can include leaner cuts of chicken, fish, meat, egg whites, low fat cheese, soy (the only complete plant protein) and vegetables", according to Karpinski. She recommends that active people eat at least one gram of protein per kilogram of body weight a day to satisfy their minimal protein needs. "The best choices are your high biological value proteins that provide essential amino acids your body doesn't produce," says Naegle.

VEGETARIANS LISTEN UP- The nutritionists consulted for this article agreed that it is more challenging, but not impossible by any means, to build muscle without eating meat. "The idea is to combine beans, whole grains, and vegetables to form complete proteins and give you your full panel of amino acids", says Naegle.

GET ENOUGH CALORIES - "How many you need depend on your age, sex and activity level", said D'Orazio. "The daily recommended requirement is roughly 2,000 calories a day for women, and 2,700 for men, depending on your weight man-



agement goals", she commented.

EAT SMALL MEALS MORE OFTEN- "Active people need to fuel themselves regularly throughout the day and have three meals and at least two snacks" said D'Orazio, who suggests the meals combine protein with carbohydrates and fats. If you are trying to lose fat, by including small amounts of protein in your meals and snacks you feed your muscles more efficiently-and maintain them. "Small frequent meals are the best fat-burning, muscle-building strategy that you can integrate into your lifestyle," she said.

BE AWAKE AT THE GROCERY STORE-How many times have you stumbled through the aisles in a haze of hunger or a fog of post-work exhaustion? Follow Naegle's checklist and you should emerge from the cereal and candy aisles (relatively) unscathed.

1. Plan Ahead-make sure you have a shopping list
2. Shop the Specials-that increases your nutritional variety
3. Read Labels-avoiding trans fats
4. Don't bring your kids (or anyone else's kids) to the grocery store with you

**Building Stronger Muscles
CREATING A HEALTHIER YOU**

Consider what strengthening your muscles can do for you, and the picture becomes a lot brighter.

Increased energy. More confidence.
More moxie. More muscle.

*It's a no-brainer, isn't it?
Muscle up to those weights and get started!*

Experts consulted for this article included:

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