

ADVANCING HEALTH NEWSLETTER

A MESSAGE FROM OUR MEDICAL DIRECTOR:

DR. RICHARD WEINSTEIN

Dear Friends of Diablo Clinical Research,

In addition to conducting medical research, Diablo Clinical Research is committed to advancing community awareness about general health issues. In each issue of our quarterly newsletter, we focus on providing information that will build your awareness of current health issues and medical research, as well as provide resources for additional information and education.

INSIDE THIS ISSUE

**Message from our
Medical Director** 1

September is National Healthy Aging Month. In this newsletter, we provide some tools for staying healthy as you age. Dr. Leonard Chuck, our co-medical Director, shares information on exercise and its relationship to healthy aging; Katy, our staff dietician, provides some tips for healthy eating which can positively impact the aging process.

**Healthy Aging
for all Ages** 1,3

Regardless of your current chronological age, whether it is 20 or 70, we are all aging with each passing day. However, this is not a bleak prospect. Modern science and medicine have given us numerous tools to live to a healthy old age. With education, awareness and healthy lifestyle habits, most people can now look forward to enjoying good health and energy well into their "golden years". What you do (or don't do) today affects your tomorrow. Why not make it a healthy one?

**Healthy Aging
with Nutrition** 2

**Benefits of Strength
Training** 3

**Free Diabetes
Testing Offer** 4

To Your Health,
Richard L. Weinstein, MD
Medical Director

HEALTHY AGING, IT'S NOT JUST FOR THE "ELDERLY"

CAN YOU REVERSE THE CLOCK?

By: Leonard Chuck, PHD, MD

Most people do not look forward to aging. The word "aging" usually signifies a decline in health, functioning, appearance and the ability to do the things you once enjoyed. Wouldn't we all love to stay young, fit and energetic and have all the wisdom and experience our lives have taught us, without the wrinkles or lack of energy? Research is continually examining aging, and ways to stay younger. This research isn't limited to wrinkle creams and botox though. Muscle and physical strength have also been studied and linked to the aging process. It's possible that you could be chronologically aging, before your brain or body really has to.

As we age, many of us neglect our physical being because of the demands of a busy life: the job, the family, the daily commute and the many social commitments we now all seem to have. Many of the things that fill our day are sedentary in nature. Being physically active and fit becomes one more difficult to achieve item on our daily "to do" list. Often when fitness takes a back seat to other priorities, our bodies suffer by becoming physically weaker. Not only does a decrease in activity affect your strength and ability to do things which you once did with ease, it actually inhibits you from maintaining a "younger" body. You may have heard that strength training (or resistance training) has many benefits in young and old alike, but recent research suggests that strength training also affects the muscles on the level of gene expression, essentially turning back the clock on muscle aging.

This recent research study (published in the on-line journal PLoS One) looked at whether strength training affects the "gene expression profile" in older adults' muscles. How does that relate to you? As we age, all organs, including the muscles in our bodies age, affecting both how we look and what level of activity we can easily do. Researchers analyzed small samples of muscle tissue from young, healthy adults and from older adults, and found that older and younger muscle differed dramatically in their gene expression profiles. The difference indicated that older muscle tissue had impaired functioning in the mitochondria structures within the cell which act as the cell's "powerhouse."

The impairment was reversible, however. After 14 of the older adults underwent 6 months of strength training, the gene expression profile in their muscles showed a more youthful appearance. "In a very real sense, the muscle was younger," said lead study author Dr. Simon Melov of the Buck Institute for Age Research in Novato, California.

(continued on p.3)

TIPS ON HEALTHY AGING WITH NUTRITION CONTINUED FROM PAGE 1

From Registered Dietician Katy Kinninger

- Try to have 3 servings of vitamin D-fortified low-fat or fat-free milk, yogurt or cheese everyday. Milk products are high in calcium and vitamin D and help keep your bones strong as you age. If you have trouble digesting milk products, try reduced-lactose milk products or soy based beverages or tofu.
- Select high-fiber foods like whole grain breads and cereals, beans, fruits and vegetables. They may keep you regular and lower your risk for chronic diseases, such as coronary heart disease and type 2 diabetes.
- Try to fit physical activity into your everyday life. Take short walks throughout your day; use a pedometer to keep track of your steps.

Here is a refreshing smoothie recipe that is a good source of calcium and vitamin D.

Fruit Smoothie: this bright and easy breakfast packs two servings of fruit plus soy protein and fiber.

Makes 3 servings, 1 cup each

ACTIVE TIME: 5 minutes

TOTAL TIME: 5 minutes

EASE OF PREPARATION: Easy

- 1 1/4 cups calcium-fortified orange juice
(Diabetics, substitute 1 1/4 cups of 2% milk)
- 1 ripe medium banana, peeled and sliced or other fruit that is in season
(Diabetics, substitute 1 cup of strawberries)
- 1 cup frozen blueberries, blackberries or raspberries
- 1/2 cup silken tofu or 1/2 cup of non-fat plain yogurt
- 2 ice cubes, crushed
- 1 tablespoon sugar or 2 packets of Splenda/Nutra-Sweet (optional)



Combine orange juice (or milk), banana (or strawberries), frozen berries, tofu and crushed ice in a blender; cover and blend until smooth and frothy. Sweeten with Splenda or Nutra-Sweet, if desired. Serve immediately.

NUTRITION INFORMATION: Per serving: 135 calories; 2 g fat (0 g sat, 0 g mono); 0 mg cholesterol; 27 g carbohydrate; 4 g protein; 3 g fiber; 18 mg sodium; 338 mg potassium.

Nutrition bonus: Vitamin C (80% daily value), Calcium (15% daily value).

TIP: To crush ice: place ice cubes in a heavy-duty plastic bag and break them with a rolling pin.

* From Eating Well, May/June '98

HEALTHY AGING

continued from p.1

So, does preliminary research indicate that exercise may even be "the proverbial fountain of youth", actually reversing aging? This is a large claim to make, and obviously more research is needed. However, the initial results are encouraging.

In addition to changes on the cellular level, research has examined how strength training can affect aging in terms of muscular strength and day-to-day functioning. According to a review of over 17 strength training studies among older individuals, strength training was shown to provide multiple benefits. For example, one study published in the New England Journal of Medicine (October, 2002) examined the results of a physical therapy program for 187 frail, elderly men and women, consisting of strength training and balance exercises. The study results showed that the exercise program resulted in a 45% reduction in disability, in just 7 months.

The American Academy of Sports Medicine (ACSM) has also conducted a review of many additional research studies which indicate that strength training, such as lifting weights, can provide multiple benefits. The ACSM believes that strength training is the most important exercise for older adults, and that it should be a priority before aerobic exercise. Ideally, it is beneficial to fit in both types of exercise; however, if you only have the time to pick one activity, strength training should be the first choice because it can provide the most benefits in a short period of time.

Weight training uses weights of some kind - machines, dumbbells, ankle or wrist weights - to create resistance which helps build the muscle mass. To achieve the most benefit from strength training, a regular weekly regimen should include exercise at least two to three times per week, for 15 to 20 minutes each session. As with any fitness program, be sure to talk with your doctor before getting started.

BENEFITS OF STRENGTH TRAINING

According to research there are multiple benefits to regular strength training. Here are the top ten reasons to get started on a resistance, strength-training program:

- 1. To build muscle strength.** Adults lose between 5 and 7 pounds of muscle every decade after age 20. Only strength training can prevent muscle loss, as well as build new muscle.
- 2. To improve functional strength and flexibility.** This is important because it can help keep you safe in your daily activities and make you less vulnerable to falls and other injuries.
- 3. To increase bone mass and density.** Weight-bearing and resistance exercises can help protect against osteoporosis, a disease in which bones become fragile and are more likely to break.
- 4. To lower body fat.** Research in strength training has demonstrated a 4 pound fat loss after three months of strength training, even though study participants increased their caloric intake by 15 percent, according to the American Fitness Professionals Association.
- 5. To reduce resting blood pressure.** Strength training reduces resting blood pressure so it decreases your risk for hypertension.
- 6. To reduce low back pain.** Research has shown that strength training can increase low back strength and alleviate low back pain.
- 7. To reduce the pain of osteoarthritis and rheumatoid arthritis.** Tufts University Diet and Nutritional Letter (1994) published a study on sensible strength training that reduced the pain of osteoarthritis and rheumatoid arthritis.
- 8. To reduce the symptoms of other chronic diseases.** Strength training can help to reduce the symptoms of depression, heart disease, type 2 diabetes, osteoporosis and sleep disorders.
- 9. To enhance your personal appearance.** Improving your strength and your physique can also be a plus for your self confidence and self-esteem.
- 10. To improve your golf game.** Believe it or not, strength training can improve golf performance by increasing club head speed and driving power. It can also help enhance other physical activities such as tennis and cycling.



DIABLO CLINICAL RESEARCH
Advancing Health

2255 YGNACIO VALLEY SUITE M
WALNUT CREEK, CA 94598

**DIABLO CLINICAL RESEARCH CONDUCTS CLINICAL STUDIES IN
MANY THERAPEUTIC AREAS. CHECK OUR WEBSITE FOR CURRENTLY
ENROLLING STUDIES:**

WWW.DIABLOCLINICAL.COM OR CALL US AT (925) 930-7267

INSERT PDF- DIABETES FREE SCREENING AD

Remove 888 number

Remove address

Align type