

BE Healthy™

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Exercise: The secret weapon for healthy living

Harold Sealls is a natural athlete. He played football back in high school and has kept in shape for years — so much so that now, at the age of 50, he says he is in the best shape of his life.

He should be. He's been working out since he was 12. Back then he used the money he earned delivering newspapers to purchase his first set of weights. He still owns another set he bought almost 30 years ago.

"They're sitting in my living room," he said, quickly pointing out that they are not simply collecting dust.

"I use my weights as I use pots and pans," he explained. "I cook regularly and I work out regularly."

He does it all — aerobics, stretching, strength training. And plays basketball at least four times a week.

"It's a part of me," said Sealls. "It's a way of living. I wouldn't know what it would be like to not exercise."

If only that were true for the majority of African Americans.

Though roughly half of all Americans say they exercise regularly, that number is only about 40 percent for African Americans. For black women, it's even lower — just over one-third.

Those numbers found in a recent Centers for Disease Control and Prevention report are particularly surprising given the well documented health benefits associated with regular exercise.

It decreases the risk of many illnesses prevalent among blacks — heart disease, stroke, diabetes, high blood pressure, overweight, high cholesterol, metabolic syndrome and colon and breast cancer. It improves respiration and cardiac function, strengthens muscles and bones and prevents falls. It's even good for the mind — it reduces depression and improves cognitive skills in older adults.

Most importantly, it lowers the risk of premature death. In Massachusetts in 2006, the rate of blacks who died prematurely — defined as before the age of 75 — was 43 percent higher than that of whites, 53 percent higher than that of Hispanics, and more than three times the rate of Asians.

Dr. Jonathan Bean is the medical director of Spaulding Cambridge Outpatient Center and a clinical researcher in the Department of Physical Medicine and Rehabilitation at Harvard Medical School. As a medical expert on exercise, he has a simple way to explain the joys of exercise.

"Think about exercise as a medicine,"

“Think about exercise as a medicine. How many of you would be willing to take a medicine every day that benefits every organ in your body and has minimal side effects?”

— Dr. Jonathan Bean

he said before posing a question. "How many of you would be willing to take a medicine every day that benefits every organ in your body and has minimal side effects?"

"There is such a medicine," he answers, "and that medicine is exercise."

It doesn't take much — less than three hours per week.

The U.S. Department of Health and Human Services (HHS) recommends a minimum of two hours and 30 minutes of moderate-intensity aerobic exercise a week, or an hour and 15 minutes of vigorous-intensity aerobic exercises a week, or a combination of both.

By "intensity," HHS means how hard a person works to perform the activity. For instance, moderate-intensity exercises include walking briskly at 4 miles per hour or bicycling about 10 miles per hour. Generally speaking, a person can talk during a moderately intense workout, but not sing.

Vigorous-intensity exercises are more physically demanding, and include jogging or running, swimming laps or jumping rope. A person engaging in vigorous-intensity exercises cannot say more than a few words

without taking a breath.

Aliya Finley, 32, admits that she hated working out, due in part to her aversion to sports as a teenager.

"In high school, no one wanted me on their team," she said.

All that changed about 12 years ago when she joined Body By Brandy Fitness Center at the prodding of her mother.

"My mother was always interested in exercise," said Finley, a senior account manager at a health insurance plan. "She and I would go to the gym together."

Her first class was step aerobics, and then she was hooked.

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Shirley Robinson (center) takes a brisk walk in Franklin Park with two friends, Christine Holley (left) and Roma McKenzie-Campbell.

The yin and yang of working out

Roosevelt Robinson is the name his mama gave him, but he goes by Master Heg.

He practices and teaches t'ai chi ch'uan, an ancient Chinese martial art that uses rhythmic movements, meditation and breathing for health and self-defense.

Now 65 years old, he says that his inauguration into t'ai chi occurred years ago. He just didn't know it.

As a young boy, he worked with his father on a two-man saw. Both had to be in sync with one another. "Boy, you don't move if I don't move," his father warned him.

"You had to move with him," said Heg. "I didn't know what I was learning."

Unknowingly, he was practicing the "push hands" technique in t'ai chi.

These days, Heg gives lessons to students who learn a series of gentle, deliberate movements that flow into body positions called "forms." Each form contains between 20 and 100 moves, and requires 20 minutes to complete. Students must focus on their breathing and



Master Heg (front) instructs George Morrison in the t'ai chi form called "grasping the bird's tail." T'ai chi has been found to improve strength and balance in older adults, as well as reduce the risk of heart disease.

technique rather than strength and power, although good muscle control is required to complete each form satisfactorily.

Heg has studied with many masters for several years and now teaches out of his academy in Roxbury,

that t'ai chi can offer the same cardiovascular benefits as moderate-intensity impact exercises, but the two are different in form. Although both activities are rhythmic, movements in t'ai chi are slow and gentle, while aerobic exercises,

such as walking, are repetitive, fast and sustained for a period of time.

Aerobic (meaning "with oxygen") activity improves the body's intake of oxygen, which is necessary to generate energy.

Oxygen is required for almost every function of the body. It keeps the heart pumping, allows muscles to contract and processes the information from the brain to the nervous system.

The more oxygen in the system, the more energy it can produce.

Aerobic activity therefore challenges the body and makes the cardio-respiratory system — affecting the heart, lungs and blood vessels — more efficient. This decreases the risk of stroke, high blood pressure and diabetes.

While aerobic and strengthening exercises are recommended for people of all ages, activities to improve flexibility and balance are also important, particularly for the elderly to help prevent falls, which can result in hip fractures.

That is why a large percentage of Heg's students are elderly.

The master ticked off other advantages of t'ai chi. For one thing, it is practical.

"Anyone can do it at any age," he

Master Heg, continued to page 4

Exercise: a lifelong prescription for good health



Brandy K. Cruthird is the founder and owner of Body By Brandy Fitness Studio in Roxbury.

Brandy's mantra

Brandy Cruthird of the Body By Brandy Fitness Studio in Roxbury wants you to make your body your business. She has built her gyms around this message, and as the holiday season approaches, it is a mantra that will become more and more important.

Brandy started Body By Brandy Fitness Inc. in 1996 because she saw a lack of access to physical fitness facilities and opportunities in the urban community. The gym and Brandy's work have been recognized for several awards, including a "Making a Difference" featurette on NBC's "Nightly News." Brandy has also opened Body By Brandy 4 Kidz, the first kids gym in the country to allow obese children with a prescription from their doctor to work out for free. The 4 Kidz gym, founded in 2005 with help from Blue Cross Blue Shield of Massachusetts, the United Way of Massachusetts Bay and Children's Hospital Boston, has already helped 500 children begin to live healthier lifestyles.

For Brandy, health is learning about and valuing your body. "I want people to see it their way," Brandy said. "You want people to first be educated about it so they can take ownership of their health and realize without their health they have nothing."

When it comes to families, Brandy believes that everyone has to get involved to stay healthy. "If you have a family, get your kids involved and lead by example," Brandy said. "Do things as a family and be mindful of what you're eating and what you give your kids to eat. What you pass

down is what they'll know. Make fitness fun."

With the holidays around the corner, Brandy offers some pointers for keeping fit:

- **Stay motivated:** Continue to exercise. It doesn't become less important.
- **Keep moving:** No matter how busy the season gets, don't stop moving. Make sure you're doing something to get your heart rate up each day.
- **Everything in moderation:** When eating over the holidays, don't overeat and don't drink too much.

As far as Brandy is concerned, these rules apply to any time of year. So as you make healthy choices in the coming months, remember Brandy's words: "Make yourself a priority, and make your body your business."

Looking for a place to get in shape?

Here are a few gyms in your neighborhood. This list is not all inclusive.

Roxbury YMCA
285 Martin Luther King Blvd., Roxbury
(617) 427-5300

Reggie Lewis Track and Athletic Center
1350 Tremont St., Roxbury
(617) 541-3535

Healthworks Foundation Fitness Center Dorchester
90 Cushing Ave., Dorchester
(617) 825-1600

Healthworks at Codman
450 Washington St., Dorchester
(617) 825-2800

Planet Fitness
500 Neponset Ave., Dorchester
(617) 287-8885

Healthworks Fitness Centers for Women
441 Stuart St., Boston
(617) 859-7700

Body By Brandy Fitness Studio
2181 Washington St., Roxbury
(617) 442-2187

Gold's Gym
323 Dorchester Ave., South Boston
(617) 268-5500

Boston Sports Clubs
560 Harrison Ave., South End
(617) 482-1266

Mikes Fitness Jamaica Plain
284 Amory St., Jamaica Plain
(617) 524-6357

Want to know a few easy ways to burn some calories?

Try these simple activities.

Brisk Walk 280 calories per hour
Ping Pong 290 calories per hour
Aerobics..... 450 calories per hour
Bicycling..... 500 calories per hour
Swimming 600 calories per hour
Running 700 calories per hour

One pound of body fat is equal to about 3,500 calories, so just getting your heart rate up may not be enough to burn off that excess. Be sure to try some weight training under the supervision of a professional.

These calorie estimates are only averages. Visit www.healthstatus.com/calculate/cbc to put in your own weight and see how you can burn more calories every day.

In a nutshell

To benefit your health:

2½ hours of moderate-intensity aerobic activity per week **AND** muscle-strengthening activities two or more days a week.



OR

One hour and 15 minutes of vigorous-intensity aerobic activity per week **AND** muscle-strengthening activities two or more times a week.



OR

A combination of both. As a rule of thumb, one minute of vigorous activity equals two minutes of moderate activity.



Muscle-strengthening activities should target the arms, legs and trunk. It is best to spread out your aerobic activity during the week, but you should exercise for at least 10 minutes at a time. A 10-minute brisk walk three times a day, five days a week will give you a total of 2½ hours of moderate-intensity activity.

Source: 2008 Physical Activity Guidelines for Americans, U.S. Department of Health and Human Services.

Move your body.

Exercise is one of the best things you can do to improve your health. Regular physical activity can reduce your risk of heart disease, osteoporosis, diabetes, obesity, and more. And you'll be rewarded with less stress, more energy, and improved muscle tone.

Aim for at least 30 minutes of exercise a day. But remember, even a little exercise is better than none at all. And if you're new to exercise, check with your doctor before beginning an exercise program.



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Questions & Answers

1. Should elderly people refrain from exercise because of their age?

Exercise is not only safe for most elderly adults, but is encouraged. Staying active at all ages is important for personal health and well-being. Studies show that regular exercise among older adults provides numerous health benefits such as improvements in blood pressure, diabetes, osteoarthritis, osteoporosis, and muscle and bone growth. Additionally, exercise among elderly adults is associated with less depression, and decreased mortality and age-related illness. It is never too late to begin an exercise plan, but it is important to start slowly with activities you are comfortable with, like walking.



Joseph R. Betancourt, M.D.
Director of the Disparities Solutions Center, Massachusetts General Hospital

2. Why does aerobic exercise help to lose weight?

Aerobic exercise causes your heart to work harder to pump oxygen throughout your body and your lungs to work hard to take in the needed oxygen. Weight loss is achieved by using more calories than you consume. When you engage in aerobic exercise, your body uses energy in the form of calories to do work, thereby burning more calories. Therefore, a healthy diet combined with aerobic exercise will help you achieve weight loss.

3. Is exercise harmful to people with disabilities?

Exercise is an essential component of health maintenance for everyone, regardless of age or disability. Regular exercise has been shown to strengthen your heart and lungs, improve mobility and flexibility, reduce stress, improve overall emotional health and reduce the risk of future injury. If you have a disability, a regular exercise routine can help you strengthen important muscles and alleviate stress. Begin by speaking with a health care professional to help you design an exercise plan that is best for you.

4. Is there a particular aerobic exercise a person must do to produce health benefits?

There is no one exercise you must do to be healthy. Regardless of the exercise you choose, it is important that your heart beats harder and that you breathe noticeably faster than when at rest. At the end of the day, the key is to just do something! Even if you start by doing 10 to 20 minutes a day, that is better than nothing, and will be beneficial. Some exercise is better than none.

5. Why does running or brisk walking strengthen bones?

Our bones, similar to muscles, are living tissues that can grow and become stronger over our lifetime. We can strengthen our bones by engaging in activities that put stress on bone. These are exercises in which we work against gravity and our bones have to handle impact from our body weight. When we engage in impact activities like running and weight lifting, our bodies increase the rate of calcium carried into our bones, which helps make our bones stronger and denser.

6. Why does aerobic exercise reduce the risk of high blood pressure?

When you engage in aerobic activities, your heart works harder than usual to pump blood and oxygen throughout your body. Over time, your heart becomes stronger and can pump more blood more efficiently and with less effort, improving blood flow and lowering blood pressure. Evidence shows that regular aerobic activity can decrease your systolic blood pressure (the top number) by five to 10 millimeters of mercury (points) — equivalent to some blood pressure medications.

7. Is it harmful to do more than the recommended weekly exercise of 150 minutes?

No. The Department of Health and Human Services recommends that adults can increase their activity to 300 minutes a week of moderate-intensity physical activity to achieve even greater health benefits. Studies show that increasing your exercise time can further reduce your chances of developing cardiovascular disease, diabetes and hypertension.

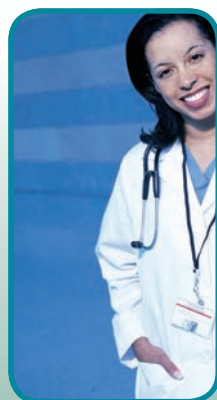
8. Is muscle-strengthening exercise important for people of all ages?

It is important that all adults participate in muscle-strengthening exercises at least twice a week and children at least three times a week. It is important to work all the major muscle groups, including the arms, legs and chest. Increasing your muscle strength confers numerous health benefits for people of all ages including helping your body burn more daily calories, improving balance and coordination, helping prevent injury and strengthening bones (fighting off osteoporosis). Talk to your doctor about which strengthening exercises are safe and best for you.

Marina C. Cervantes of the Disparities Solutions Center participated in the preparation of these responses.

The picture of health

Participating in regular exercise that benefits health is one of the most important and effective lifestyle changes a person can make. The good news is that there is not a particular exercise one must do to improve one's health. Any aerobic exercise — one that makes the heart beat faster — will do as long as it's done at moderate or vigorous intensity for a minimum of 10 minutes at a time. But any exercise is better than none.



Exercise is just one part of the picture for a healthy lifestyle. Eat a diet rich in fruits, vegetables, lowfat proteins and whole grains. Do not smoke, and drink in moderation. Maintain a healthy weight. Keep up with screenings and maintain a relationship with your doctor.



Health benefits associated with regular exercise

Lower risk of

- Premature death
- Heart disease
- Stroke
- High blood pressure and cholesterol
- Type 2 diabetes
- Metabolic syndrome
- Colon cancer
- Breast cancer

- Weight loss, particularly when combined with reduced caloric intake
- Improved cardiorespiratory and muscular function
- Reduced depression
- Improved cognitive skills, especially in older adults
- Reduction in falls
- Increased bone strength

Healing the racial divide in health care

Dr. Joseph Betancourt wrote the book on health care disparities. Now he's trying to erase them.

When Joseph Betancourt was in medical school, he often saw children acting as interpreters for family members who did not speak English. Originally from Puerto Rico, and as the only Spanish-speaking medical student on his team, he had to interpret for hospitalized patients.

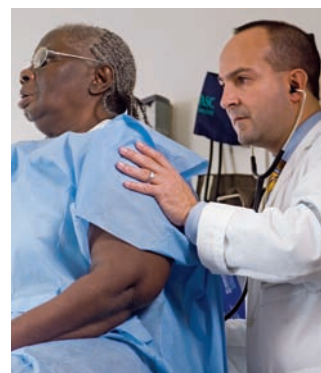
Years later, Joseph Betancourt, MD, MPH, co-authored a landmark study by the Institute of Medicine that found striking inequities in health and health care for racial and ethnic minorities across the US.

When Massachusetts General Hospital president Peter Slavin, MD created the Disparities Solutions Center at MGH, he chose Dr. Betancourt to lead it. "It is time to move from diagnosing the problem to treating it," said Dr. Slavin.

The MGH Center is the first hospital-based Disparities Solutions Center in the country to move disparities beyond research into policy and practice. It has \$3 million in support from MGH and Partners HealthCare.

The Disparities Solutions Center will:

- advise MGH in its efforts to identify and address racial and ethnic disparities in care;
- develop and evaluate customized solutions to



eliminate disparities in the health care community in Boston and beyond;

- educate, train and expand the number of leaders working to end disparities nationwide.

Perhaps most important, the center will transfer what it learns to hospitals and health centers, community groups, insurers, medical schools, educators, government officials, and of course, physicians and nurses across the country.

One of the Center's first efforts is the new Diabetes Management Program at the MGH Chelsea Health Care Center, where more than 50 percent of patients are Latino. Latinos are more likely than whites to die from diabetes complications including kidney failure, blindness, heart disease, and amputations.

MGH Chelsea health professionals will help patients control their diabetes, get regular screenings, and prevent complications through telephone outreach, individual coaching, and group education sessions in English — and Spanish.

Translating talk into action is what Dr. Betancourt has been doing all his life.

More information at Boston Public Health Commission at www.bphc.org

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Hooked, but not disciplined. That changed when she turned 30 years old. Working out became a regular part of her day-to-day routine. “When I hit 30 it was a wake-up call,” she explained. “Now I go to classes because I like them.”

Most of her exercise is confined to the fitness center — everything from the treadmill and elliptical machine to lifting free weights and attending kickboxing classes.

“I really need group motivation,” she said. “On my own I slack off. If I’m in a group, I’m more consistent.”

Although Finley admits that she struggles with her weight, she says that she exercises for her health. Family members have diabetes and high blood pressure and she is trying to keep them at bay.

“I want to control my weight and be healthy,” she stressed. And she thinks her exercise has paid off. “The more I worked out, I saw my strength and endurance increase,” she noted. “And it didn’t take long. I was not winded when walking on the treadmill.”

She attributes her increase in alertness to exercise as well. “I’m not a morning person, but if I work out in the morning, I’m wide awake before I get to work,” Finley reported. “I’m more on point and ready to get the day started.”

Initiating an exercise regime takes a bit of planning. Inactive adults should start out gradually at light or moderate intensity for short periods spread throughout the week. For example, a safe approach could be five minutes of slow walking several times a day for five to six days a week. Gradually, the time can be increased to 10-minute walks three times a day. Walking speed can also be increased slowly.

It doesn’t take long for the health benefits to kick in. Health benefits accrue with as little as 60 minutes a week of moderate-intensity aerobic exercise. Exercisers who meet the minimum recommendation of 150 minutes a week can increase the intensity, duration and frequency of their activities to achieve even greater health benefits.

While aerobics are good for cardiovascular health, muscle-strengthening activities increase both bone and muscle strength, and should be combined with aerobic activity.

In simpler terms, according to Bean, aerobic exercise is most beneficial at lengthening a person’s life, while strengthening exercises are the best way to increase and maintain a person’s daily functioning.

Examples of muscle strengthening exercises include weight lifting, working with resistance bands or calisthenics such as push-ups, pull-ups or sit-ups. It is important to work on the entire body and include exercises that target the arms, legs and trunk.

The HHS recommends strengthening exercises at least two days a week. Muscle strengthening is defined in terms of repetitions. To enhance the strength of a muscle or group of muscles, one set of between eight to 15 repetitions is recommended.

Bean offers advice on weight training. “To improve strength,” he said, “do eight to 12 repetitions of the exercise. On the last repetition you should not be able to do another one, while maintaining good form. If you can, then it is time to add a higher weight. Otherwise, you will stay at that level of strength.”

Additionally, a general rule of thumb is increasing weight by one to two pounds for arm exercises and five pounds for leg exercises. Bean recommends two sets of at least eight to 10 repetitions.

The bottom line is that any physical activity is better than none.

Just ask Shirley Robinson. She just turned 60 years old and has been walking for years.

She does other exercises as well — she stretches to keep limber, uses free weights for strength, and every now and again, goes bowling.

But her passion is walking. She joined gyms in the past, “but I was inconsistent in going,” she said. “I’d go for a few months, and then stop. The commitment was not there.”

About 15 years ago, she just started walking. She especially enjoys her walks in the spring and summer.

“It’s peaceful; you can hear the birds sing,” Robinson said.

She usually walks two to three miles

several times a week. If she can’t walk in the morning she goes during lunch. Fortunately for her, she works near Franklin Park and Jamaica Pond — two of her favorite places.

Robinson has an additional motivation to keep on walking: A few years ago, she was diagnosed with high blood pressure. It was not totally unexpected; it runs in her family.

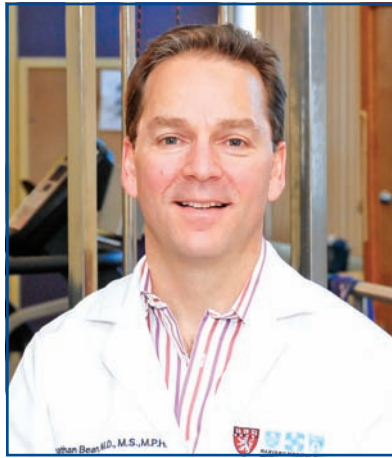
For now, her blood pressure is well controlled with diuretics alone, and Robinson is quick to point out that she wants to keep it that way.

And that’s where she gives credit to regular exercise and walking, which she says has improved her endurance and stamina.

“I have a lot more energy and don’t feel so stressed,” Robinson admitted. “If I don’t go I feel sluggish. When I walk ... I can do more.”

Bean offers encouragement. “Exercise can be a challenging habit to adopt and maintain. There’s more to it than just taking a pill,” he said.

Many people start, then stop. “Keep plugging,” he said. “Try again, and if you don’t succeed, then try again — every attempt can have a positive effect on your health.”



Jonathan F. Bean, M.D., M.S., M.P.H.
Medical Director
Spaulding Cambridge Outpatient Center



Aliya Finley (left) works out with trainer, Bobby Stevenson, at Body By Brandy Fitness Studio in Roxbury.



Harold Sealls started exercising at the age of 12. He still plays basketball several times a week and does aerobics and weight training as well.

One step at a time

It’s hard to get started. For some, exercise is boring, expensive, time-consuming and even embarrassing. But it might be easier than you think. Start with baby steps and see where it takes you.




← Build physical activity into your routine chores.





← Make family time a physical activity.




← Make it fun. Dance or participate in a sport that you like.



← Try walking. Walking is easy and can be done almost anywhere.




← Include muscle strengthening at least twice a week.





← Progress to more vigorous intensity exercises if you can.

Can you sing?

There’s a simple way to determine if you’re engaging in moderate- or vigorous-intensity aerobic activities. During a moderate-intensity workout, generally you can talk but not sing. In vigorous-intensity exercise, you cannot say more than a few words without taking a breath. See examples below.

Moderate Intensity

- Brisk walking – 3.5 to 4 miles per hour
- Bicycling — slower than 10 miles per hour
- Tennis — doubles
- Social dancing
- General gardening — raking, weeding, bagging leaves
- Baseball, softball
- Hiking
- Golf
- Light snow shoveling

Vigorous Intensity

- Race walking
- Bicycling 10 miles per hour or faster
- Tennis — singles
- Aerobic dancing
- Heavy gardening — pushing hand lawn mower
- Basketball
- Jogging, running
- Jumping rope
- Heavy snow shoveling

Master Heg continued from page 1

said. “You don’t have to be athletic and you don’t have to wear special clothes. You can practice it anywhere — and if you do it right, you won’t pull a muscle or break a bone.”

No need to tell George Morrison about the benefits of t’ai chi. He already knows.

He is 73 years old now and is very honest in explaining why he started practicing t’ai chi. It wasn’t because of any medical condition. Nor did he have problems with his balance or stamina.

The real reason, Morrison explained was simple — to stop his longtime friend, Master Heg, from nagging him so much.

Morrison finally surrendered 10 years ago. “I became a student of t’ai chi,” he says. “I am still a student.”

“I understand the value of conditioning,” Morrison went on. “I was an athlete and played football in school and ran track.”

But as years passed, Morrison realized he had lost a step — or two. He still golfs, but t’ai chi is now a part of him. He practices twice a week.

“It helps strength, balance and coordination,” he says. “It gives you a healthier life — more stable and secure.”

Morrison was quick to point out the mental conditioning that results from t’ai chi as well. “It’s a total problem-solver,” he said.