Washington Post

If a pill could significantly lower the risk of heart attack, diabetes, stroke, osteoporosis and breast and colon cancer while reducing weight, cholesterol levels, constipation, depression and impotence and also increase muscle mass, flatten the belly and reshape the thighs even as it reduced the risk of age-related dementia and made you better-looking — and had no negative side effects — there would be panic in the streets. The American economy would tip into chaos. The military would have to be called in to secure supplies of the medication.

Luckily, there is no such pill.

But a large and growing body of credible research demonstrates that taking a good walk most days of the week can deliver all of the health benefits cited above and more (although we admit the "better-looking" part is harder to prove).

Yes, walking. You know: one foot in front of the other, repeat, repeat, repeat. A mode of exercise formerly considered the domain of the elderly, the infirm and others incapable of or unwilling to do anything more brow-dampening.

What's difficult to figure is why so many people do not bother to do it.

According to the Centers for Disease Con-

trol and Prevention (CDC), somewhere near 75 percent of the U.S. population fails to get 30 minutes of daily exercise, whether that's walking or some more strenuous form of sport or recreation. Approximately one-third live a life officially defined as sedentary.



Worse is the recent news that 30 minutes a day may not be enough. Last month, the National Academy of Sciences upped the ante, telling North Americans to aim for 60 minutes of moderately intense activity per day. The CDC estimates that only three percent of North Americans exercise 60 minutes a day.

Why we're not out there walking is a mystery. It is, after all, virtually free, safe, pleasant, easy to do and hard to get wrong. It requires no special equipment except

(maybe) a pair of shoes. So why are so many North Americans avoiding it (and other less popular forms of moderate physical exercise) to the point that we're creating an epidemic of obesity and scary upticks in the many diseases and conditions associated with it?



Could it be that we've filled our lives so full of work and other obligations that we have no energy left for the one thing most likely to keep us strong and healthy for the daily battle? (Sure.) Can it be that our communities and cities have been engineered in ways that discourage or punish those who try to walk? (Yup, that too.) Can it be that nobody's figured out how to make much money from other people's walking habits, so there's no great commercial force urging us to walk, nothing comparable to the marketing efforts trying to get us to drink sodas, order pizzas and buy new cars? (We think so.)

And can it be that some people just haven't had a recent reminder about all the good things walking can do, haven't heard some expert opinions on how to go about it and haven't checked out all the resources they can use to begin walking to improve their health?

### **How Walking Works**

Accepting that an activity as basic as walking can have powerful benefits may require updating your thinking about exercise.

"We used to think that exercise had to hurt, and you had to bleed and throw up to accomplish anything," said Susan Johnson, director of continuing education at the Cooper Institute in Dallas, which studies the link between personal habits and health. "We now know that's not true."

But all of the research fails to answer the question of how something so simple can have such salutary effects.

As soon as you take that first step, a host of metabolically significant events is set in motion inside your body.

According to Greg Heath, lead scientist in the CDC's physical activity and health branch, early in your walk your adrenal glands begin secreting adrenaline, which gets into your bloodstream and signals your heart to beat faster and causes your blood pressure to go up. The heart then begins to pump more blood away from the chest and into the muscles of the limbs you're using to get yourself down the street. As a result,

blood vessels in the arms and legs begin to expand as they're fed more nutrients and oxygen by the blood.



As your heart rate climbs, you're taking more breaths per minute, sometimes increasing your oxygen intake to 10 times the amount you'd be taking in if you were sitting still. As the muscles receive more blood, they begin to use up carbohydrates and sugar starches they've stored. Metabolism — the process by which the body breaks down materials and converts them to fuel — speeds up. As a result, so does digestion.

All this activity causes the brain to release endorphins into the bloodstream. Endorphins, which have chemical properties similar to opium, are responsible for blocking pain and ushering in that cozy sense of wellbeing you feel as soon as your walk ends. Additionally, exercise causes the brain to release an abundance of the neurotransmitter serotonin, which works to elevate mood.

And that's all during the course of one walk.

If you walk regularly, you can expect exponentially more benefits. Explains JoAnn Manson, director of preventive medicine at Harvard's Brigham and Women's Hospital, your heart muscle will grow stronger and better able to deliver more oxygen to the body during periods of rest. The lungs, capillaries and vessels along the oxygen transport pathway will expand to handle more capacity, bringing more oxygen to more parts of the body more often, a process that has been linked to reductions in risk of cardiovascular disease.

Blood pressure drops within 24 to 48 hours of exercising, and will stay down with continued exercise. The risk of blood clots also drops and stays lower if you keep the walking up. Circulation improves, which makes digestion more efficient. The body becomes better at getting glucose into the muscles where it's needed, thus smoothing out blood sugar levels and helping the body process fat. The body gets better at converting fat into energy, so you lose weight more easily than with dieting alone.

In addition, regular walking, especially the more vigorous sort, increases lean muscle mass, which consumes more energy than a similar amount of fat, thereby helping you maintain a healthy weight.

Regular exercise can also help you sleep better, which in turn delivers its own set of health benefits.

All of which is to say, once you get going with a regular walking program, your body becomes a kind of self-improvement machine.

# Questions 25

Name\_\_\_\_\_

Answer the following questions in the space provided. Use complete sentences and accurate spelling.

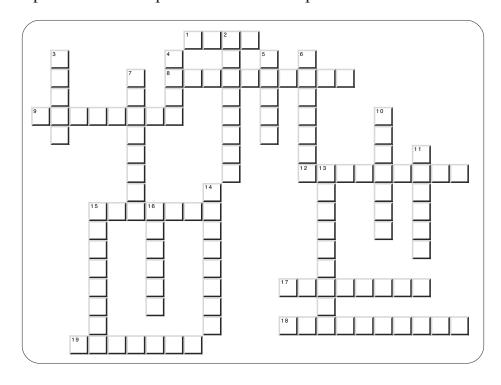
- 1. According to this article, what does a large and growing body of credible research demonstrate?
- 2. What is the amount of time that the National Academy of Sciences recommends for daily activity?
- 3. Who is Susan Johnson?
- 4. What physical things start to happen early in a walk?
- 5. What are some benefits of endorphins?

6. How does exercising help blood pressure?

## Crossword 25

name\_\_\_\_

Use the clues provided to complete the crossword puzzle below.



Δ	Crace	1

1	Walking	is	virtually	
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- 8 Our communities and cities have been \_\_\_\_\_ in ways that discourage or punish those who try to walk
- 9 Walking can have powerful health \_\_\_\_\_
- 12 Approximately one-third of the population live a life defined as \_\_\_\_\_
- 15 Centers for Control and Prevention
- 17 Blood
- 18 The process by which the body breaks down materials and converts them to fuel
- 19 A mode of exercise formerly considered the domain of the elderly and others incapable of more strenuous activity

#### Down

- 2 We're creating an \_\_\_\_\_ of obesity
- 3 Only \_\_\_\_\_ percent of North Americans exercise 60 minutes a day
- 4 While walking, blood vessels in the arms and \_\_\_\_\_ expand
- 5 Lead scientist in the CDC's physical activity and health branch
- 6 As your heart rate climbs, you're taking more \_\_\_\_\_ per minute
- 7 National Academy of \_\_\_\_\_
- 10 Director of continuing education at the Cooper Institute
- 11 The Cooper Institute is located here\_\_\_\_\_
- Walking requires no special \_\_\_\_\_
- 14 This demonstrates that a good walk can deliver health benefits
- 15 Becoming forgetful
- 16 Thirty minutes of walking may not be \_\_\_\_\_

DWYMDQVBENEFI SQIAPRESSURE EFUSLVFMYSWF EKXV Y T M UJMNHE Ν NESPMMSNEHEHA TVEYWEE EGROEDYOE J R E ADAOIQTNF RERPGWA TBRGEMSC Α YMCROOV B E EQOWEUEHHRZDSEOL NQUKHANDRLEORU TLIUZGUE LGSSZ AEANSRWYZXV HDEEPI DEMICTYMX

BENEFITS
BREATHS
DALLAS
DEMENTIA
DISEASE
ENGINEERED
ENOUGH
EPIDEMIC
EQUIPMENT
FREE

HEATH
JOHNSON
LEGS
METABOLISM
PRESSURE
RESEARCH
SCIENCES
SEDENTARY
THREE
WALKING

### Answers for Packet #25

1. According to this article, what does a large and growing body of credible research demonstrate?

It demonstrates that taking a good walk most days of the week can deliver health benefits.

2. What is the amount of time that the National Academy of Sciences recommends for daily activity?

They tell us to aim for 60 minutes of moderately intense activity per day.

3. Who is Susan Johnson?

She is the director of continuing education at the Cooper Institute in Dallas, which studies the link between personal habits and health.

4. What physical things start to happen early in a walk?

Your adrenal glands begin secreting adrenaline, the heart begins to pump more blood and blood vessels in the arms and legs begin to expand as they get more nutrients and oxygen by the blood.

5. What are some benefits of endorphins?

Endorphins are responsible for blocking pain and ushering in that cozy sense of well-being.

6. How does exercising help blood pressure?

Blood pressure drops within 24 to 48 hours of exercising, and will stay down with continued exercise.

