



Alive & WELL



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Understanding Your Metabolism

Metabolism can be a complicated subject, and there are many common misconceptions. Simply stated, metabolism is the amount of energy (calories) that your body burns to maintain itself.

Metabolism is made up of three components. About 70% of your total energy expenditure is due to the basal life processes within the organs of the body (brain, liver, kidneys, heart, etc). About 20% comes from physical activity, and another 10% from thermogenesis, or digestion of food.

The first step to understanding your own metabolism is to estimate your metabolic needs.

Step 1 Calculate Your BMR

Basal Metabolic Rate (BMR) is the minimum energy required to maintain your body's basic functions, such as breathing and brain activity, and does not account for physical activity. Use the appropriate equation below to calculate your Basal Metabolic Rate (BMR).

Adult Men: $66 + (6.23 \times \text{weight in pounds}) + (12.7 \times \text{height in inches}) - (6.76 \times \text{age in years}) = \text{BMR}$

Adult Women: $655 + (4.35 \times \text{weight in pounds}) + (4.7 \times \text{height in inches}) - (4.7 \times \text{age in years}) = \text{BMR}$

Step 2 Apply the Harris-Benedict Principle

Use the following table to calculate the recommended daily calorie intake to maintain your current weight.

Little to no exercise	BMR x 1.2
Light exercise (1-3 days per week)	BMR x 1.375
Moderate exercise (3-5 days per week)	BMR x 1.55
Heavy exercise (6-7 days per week)	BMR x 1.725
Very heavy exercise (twice per day, extra heavy workouts)	BMR x 1.9

If you've ever had a conversation with someone about weight loss, chances are you've heard some of the following statements about metabolism. Are they true or false? Keep reading to find out.

I just have a slow metabolism.

True: In an article for WebMD, Barrie Wolfe-Radbill, RD, a nutritionist specializing in weight loss at New York University Medical Center stated, "Some people just burn calories at a slower rate than others." He listed some of the factors that can influence a person's body fat as:

- Thyroid issues, which can reduce metabolism
- Certain hormones can increase or decrease metabolism.
- Body composition: more muscle increases metabolism, less muscle decreases metabolism
- Certain supplements can increase or decrease metabolism.
- Prescription and over-the-counter drugs can increase or decrease RMR.

I can change my metabolism.

True: Many of the factors that determine metabolism we have no control over, but there are a few things you can do to keep your body's engine "revved up."

- Exercise burns calories and helps control weight in the short term. In addition, building lean muscle mass will increase your calorie burn in the long run. A pound of muscle burns about 35 calories a day, while each pound of fat burns only two calories per day. If you have more lean muscle mass on your body you will be burning significantly more calories every day.
- Eat more often, and you'll lose more weight. Eating five to six small meals a day will help keep your metabolic rate high. When you put too many hours between meals, your metabolism slows down to compensate. If you then eat a huge meal—at the same time your metabolism is functioning as if you're starving—your body wants to hold on to every calorie. While this won't make much difference on an occasional basis, if you make it a way of life it can get harder to lose or maintain weight.
- Be sure you are eating enough food. Use the equations above to calculate your BMR and, unless consulting with a doctor, stay above that level. Your body must learn to trust that you will nourish it on a regular schedule and with adequate amounts of nutrient-dense foods.

Our Education Issue

This issue of "Alive & Well" is all about learning. Inside you'll find articles and features that we hope will help you achieve new levels of personal, spiritual, and mental wellness—from understanding your metabolism to boosting your brain power. Take care, and we'll see you again in September with more wellness-related articles and tips.

After losing weight it is challenging to keep it off because of my metabolism.

True: When you have lost significant amount of body fat and muscle, your body needs fewer calories to maintain that weight. A person who has lost weight to get down to 130 pounds needs far fewer calories than a person who weighs 130 that never dieted. Continuing with the healthy eating and exercise is very important otherwise the weight will come back quickly.

I hope this gives you a better understanding of how metabolism works, and what you can do to change yours. Remember, exercise and proper calories are key to keeping your body's furnace running efficiently 24 hours a day!

Contributed by Ashley Goddard



NUTRITION INFORMATION CHALLENGE

This month, take a minute to learn the nutrition information of a favorite food or beverage. Connect yourself with the nutrients and calories for that item. Knowledge about the nutrients and calories gives you the power to make healthier choices.

Small changes can really add up. For example, the medium (16 oz.) iced nonfat vanilla latte at McDonald's has 150 calories, while the iced nonfat latte with sugar-free vanilla syrup has only 50 calories. A person who orders a latte three days a week will lose nearly five pounds in a year with this one simple substitution.



Calorie Comparison

McDonald's 16 oz. iced nonfat latte **with vanilla syrup** **150** calories

McDonald's 16 oz. iced nonfat latte **with sugar-free vanilla syrup** **50** calories

Contributed by Emily Moenck

Essential Steps to Making Permanent Life Changes

Research shows an increase in behavior change success rates when support systems are in place and used. For part four of our six-part series on making life changes, we'll focus on how to create a solid support system. If you're working toward your goal and haven't given much thought to support yet, now is the time. The level and type of support needed varies for everyone, but some level of support is essential to success. Prior to creating your support system, consider the following aspects of support.



Create a Foundation

A good support network creates a solid foundation on which you can build. The more diverse your network is, the better the chances you'll have what you need to achieve and sustain success. Potential recruits can include your spouse, children, parents, friends, coworkers, health care professionals, and personal trainer.

If your goal is to exercise more, you could sit down with your spouse, for example, to review your exercise schedule and confirm he or she can support you by helping with the children or meal preparation—to ensure you have the time you need to fit your workouts in. If you are trying to eat healthier, you could gain the support of your coworkers by planning a “healthy options” potluck at your workplace.

Category of Support

The categories of support are social, emotional, functional, and educational. Each category covers a different need that if unaddressed can hinder success. For example, a lack of knowledge about fitness equipment can be an obstacle to joining a fitness facility. One solution could be to request an orientation (educational support) on the fitness equipment by a personal trainer at the fitness facility.

Lack of motivation to exercise in the morning is another common obstacle. A possible solution is to enlist a friend to join you (social support). It may just be the key to get you up and moving in the morning hours!

Method of Support

It's important to also find the support environment that makes you feel the most comfortable. Some examples are one-on-one, group settings, or online networks. The first two methods are effective and have been used to facilitate behavior change for many years. Some examples of group setting support programs are Weight Watchers, TOPS Club, and the American Lung Association Freedom from Smoking® Program. Online support networks are becoming more popular. There are now numerous online support resources for those making behavior change. The important thing about the method is determining which one is the most effective for helping you achieve success.

Creating and using your support system is important and can be a determinant in your long-term success. Research on support systems has shown people are most effective at receiving support when they are also giving support to others. So gather those around you who are also making behavior change and multiply everyone's success!

The next article in the series will focus on motivation.

Contributed by Emily Moenck

Healthy Moves

Dual Warrior

Get more bang for your workout buck by working multiple muscle groups at the same time. Adding multi-joint exercises to your routine can help make your workout more efficient. The Dual Warrior is a great example that works your shoulders as well as your glutes.

Starting Position:

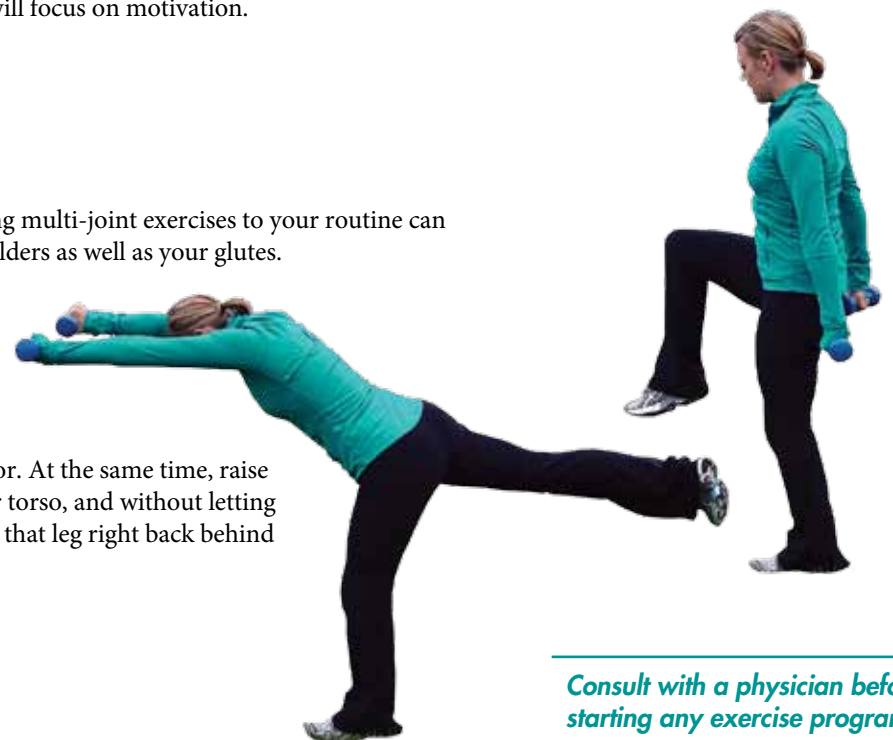
Grab a pair of light dumbbells (3-8 lbs.) and stand on your left leg. Place your right toe on the floor a foot behind you. Keep your arms at your sides, knuckles forward.

Action:

Lean forward while raising your right leg behind you until your torso is nearly parallel with the floor. At the same time, raise both arms out in front of you, keeping your knuckles up. Lower your arms to your sides, raise your torso, and without letting your right foot touch the floor, bring your right knee in front of you, bending it 90 degrees. Extend that leg right back behind and repeat.

Perform 12-15 repetitions and then repeat on the other side.

Contributed by and featuring Ashley Goddard



Consult with a physician before starting any exercise program.

Know Your Numbers

When was the last time you had your cholesterol, triglycerides, blood pressure, and fasting glucose tested? If not within the last year, it might be time to pay a visit to your physician. If you know your numbers, you can determine if you're in a healthy range or at risk for developing certain diseases, specifically heart disease. In this article, we'll look at what the tests mean, why they are important, and what the healthy ranges are.

Total Cholesterol

Cholesterol is a soft, fat-like, waxy substance found in the bloodstream and in all of the body's cells. Your body produces cholesterol and we also get cholesterol from the food we consume. Cholesterol is an important part of a healthy body because it is used for producing cell membranes and certain hormones; however, increased levels put you at risk for heart disease.

Total Cholesterol	Values
Low Risk	Less than 200
Moderate Risk	200-239
High Risk	240 and Greater

LDL Cholesterol (Low-Density Lipoproteins)

You can think of LDL cholesterol as the "lousy" cholesterol. When too much LDL cholesterol circulates in the blood, it can build up in the inner walls of the arteries that feed the heart and brain, and form plaque—a thick, hard deposit that can narrow arteries and make them less flexible. If a clot forms and blocks a narrowed artery, a heart attack or stroke can result. Causes of increased LDL can be lack of activity, weight gain, and/or eating too much saturated fat, trans fat, and dietary cholesterol.

LDL	Values
Low Risk	Less than 100
Moderate Risk	100-159
High Risk	160 and Greater

HDL Cholesterol (High-Density Lipoproteins)

HDL cholesterol is the "healthy" cholesterol. It protects against heart disease, so for HDL, high numbers are better. HDL carries LDL cholesterol away from the arteries and back to the liver, where it is passed from the body. HDL also removes excess cholesterol from the walls of arteries, slowing the build-up of plaque. Cardiovascular exercise can have a positive impact on your HDL numbers.

HDL	Values
Low Risk	60 and Greater
Moderate Risk	40-59
High Risk	Less than 40

Triglycerides

Triglycerides are a type of fat in the bloodstream and fat tissue. They can be found in foods such as butter, margarine, and corn oil. Elevated triglycerides can be caused by being overweight or obese, physical inactivity, excess alcohol consumption, or a diet high in carbohydrates. People with high triglycerides often have high cholesterol levels, increasing the risk for heart disease.

Triglycerides	Values
Low Risk	Less than 150
Moderate Risk	150-499
High Risk	500 and Greater

Blood Pressure

Blood pressure is measured by the amount of pressure placed on the artery walls while the heart beats. The top number represents your systolic pressure, or the pressure placed on the arteries when your heart is contracting. The bottom number represents your diastolic pressure, or the pressure placed on the arteries when your heart is relaxing. Proper nutrition and sufficient exercise are critical to lowering or maintaining blood pressure. Hypertension (high blood pressure) is a main risk factor for developing heart disease and stroke

Blood Pressure	Systolic/Diastolic
Low Risk	< 120 / < 80
Moderate Risk	120-139 / 80-89
High Risk (Stage 1 Hypertension)	140-159 / 90-99
High Risk (Stage 2 Hypertension)	> 160 / > 100

Fasting Glucose

The food we eat turns into glucose (sugar) during digestion and is the major source of energy for most cells of the body and brain. Insulin is a hormone that is released into your blood that helps your body's cells use glucose so that your blood glucose levels don't get too high. Blood glucose levels that remain high over time can damage your eyes, kidneys, nerves, and blood vessels. Checking your fasting blood sugar level will tell you if you're at risk for developing diabetes.

Glucose Classification	Values
Low Risk	Less than 100
Moderate Risk (Pre-Diabetes)	100-126
High Risk (Diabetic Range)	> 127

Summary Chart of Ideal Levels

Numbers	Goal	Next Doctor Visit
Total Cholesterol	< 200	_____
LDL Cholesterol	< 100	_____
HDL Cholesterol	> 60	_____
Triglycerides	< 150	_____
Blood Pressure	< 120/80	_____
Fasting Glucose	< 100	_____

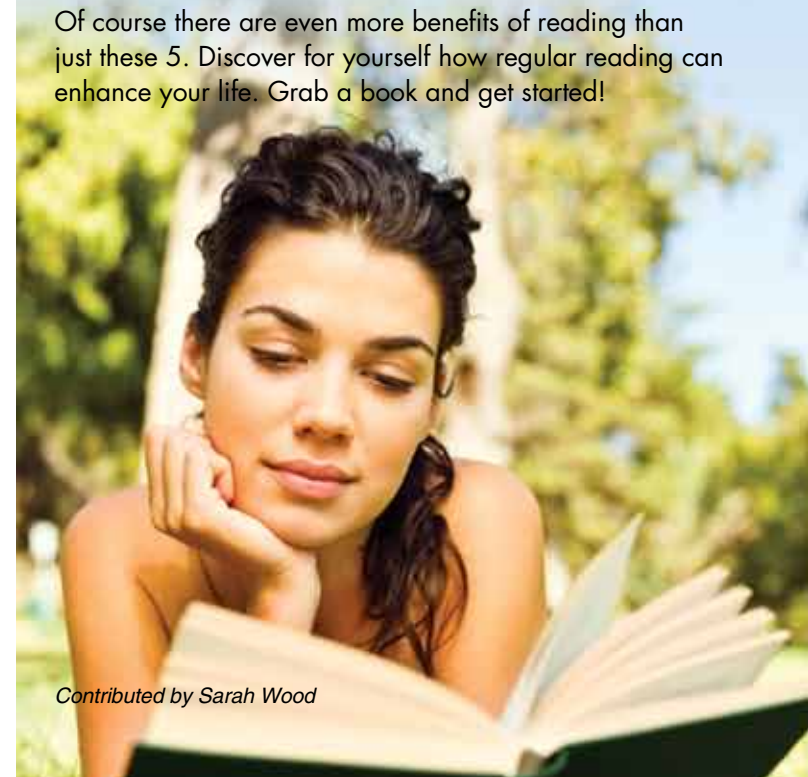
Contributed by Sarah Wood

5 Reasons to Read More

When is the last time you sat down with a book and were captivated by the plot, characters, or storyline? Or had the time to read an article or two in a magazine or newspaper? With our over-packed schedules and the distraction of technology, it's no surprise that reading often takes a back seat to other forms of entertainment.

- Use it or lose it:** Just as our bodies need regular exercise, so do our brains. Reading is an active mental process that makes you use your brain. And research shows that if you don't use your mental capacity, you'll lose it. Reading promotes brain activity and connections between neurons needed for brain development and to sustain a healthy brain.
- Improves vocabulary:** If you read on a regular basis, you'll most likely come across unfamiliar words. Using the context around the unknown word, you're able to figure out what the word means. Read, and watch your vocabulary grow.
- Improves concentration:** Have you ever been in the middle of reading a book and realized you can't remember what you read on the last few pages? Maybe you were daydreaming or were distracted by your surroundings. Your eyes were following the words left to right but you weren't digesting the material. Since you must concentrate in order to read, reading can improve your concentration—not only for reading but in other areas of your life.
- Improves memory:** Memory is another thing you can lose if you don't use it. Reading requires remembering details, facts, figures, plot lines, themes, and characters. The more you use the memory center in your brain the better you will become at remembering things.
- Improves discipline:** If you have a busy schedule, you'll have to set aside 10 to 30 minutes each week to read. This takes a little planning and commitment, and sticking to it improves discipline.

Of course there are even more benefits of reading than just these 5. Discover for yourself how regular reading can enhance your life. Grab a book and get started!



Contributed by Sarah Wood



Visit the WPS Health Center and take a more active role in your health. Search the Healthwise Knowledgebase to find answers to your health questions, use our interactive symptom checker when you have an illness or injury, and get tips for living a healthier lifestyle. Every topic is reviewed by medical experts and based on the most reliable, up-to-date information.

Children will be heading back to school soon, and they may bring home more than homework. Runny noses, itchy scalps, and scraped knees are just a few of the things that show up at this time of year. Plus, having been away from school all summer, children may need a little extra help with self-esteem when they re-enter the school yard. The WPS Health Center covers a wide range of back-to-school health issues and strategies for building self-esteem.

Clearing the confusion about vaccines

The media has recently been reporting that some believe there may be a link between vaccines and autism. If you are parent you may be concerned about this hot-button debate. If you have questions about vaccines, how they work, and their safety, get the facts without the hype. **Visit the Health Center at www.wpsic.com for the facts about vaccines.**

When colds get serious

The kids are back at school, but they're coming home with sniffles, sneezes, and coughs. Is it just a common cold, or is it RSV? Respiratory syncytial virus (RSV is a type of cold, but it can be more serious. **Visit the Health Center at www.wpsic.com to find out what to watch for and ways to reduce your child's changes of getting infected.**

How to stop a bully

Children who bully can make life miserable for other kids. Being bullied can make kids feel scared and angry. They don't know what to do, which is why you need to step in and help. Start by talking to your children, and teach them to "talk, walk, and squawk." **Visit the Health Center at www.wpsic.com to learn more about dealing with bullies.**

We Want to Hear from You

We value your feedback and suggestions. How can we improve the *Alive & Well* newsletter? If you have questions, comments, or suggestions, please email Jeff Hlavacka, senior coordinator of preventive health services, at jeff.hlavacka@wpsic.com.

Meet the WPS Wellness Team



JEFF HLAVACKA, senior coordinator of preventive health services

Jeff graduated from University of Wisconsin Oshkosh, earning his Bachelor of Science degree in exercise physiology with minors in health education and sports coaching. Jeff holds certifications in personal training, group exercise, tobacco cessation, and worksite wellness management.



ASHLEY GODDARD, health promotion specialist

Ashley has a bachelor's degree in health promotion from the University of Wisconsin-Platteville with a minor in psychology. Her education helps her understand the many factors that determine a person's overall health. Ashley also has experience teaching group fitness classes, as well as coaching adults in a wellness setting.



EMILY MOENCK, health promotion specialist

Emily graduated from the University of Wisconsin-Stevens Point with a bachelor's degree in health promotion and wellness, with a minor in safety and health protection. Before joining WPS, Emily spent four years with Kohler Co. working on occupational safety and wellness initiatives. She is also a certified American Lung Association Freedom from Smoking facilitator.



SARAH WOOD, health promotion specialist

Sarah graduated from the University of Wisconsin-Milwaukee with a bachelor's degree in kinesiology and a submajor in exercise and fitness. She received her wellness coach certificate from the Health for Life Institute, and is also certified in ACE group exercise, Turbo Kick, PiYo™, and yoga.

