

Reach your target heart rate for cardiovascular fitness



By Dan Porter

If you have begun an aerobic exercise program, you might be curious about what exercise level is the most beneficial to your body. This level is called your Target Heart Rate (THR), and it occurs when your heart is beating at a certain percentage, usually 65-80 percent, of your heart's maximum level. In the THR zone, fat is burned most efficiently and you get the most out of your workout.

Your THR is the best training indicator that your body is equipped with because it will let you know when you are exercising effectively. Knowing your THR will also help you exercise within a safe range so that you will not overexert your body. Taking your THR will also let you know if you need to exercise at a higher level of exertion.

Your THR is the optimum heart rate at which aerobic exercise will help you in attaining cardiovascular fitness. You can calculate your THR by estimating your Maximum Heart Rate (MHR). MHR is an estimation of the highest potential that your heart can reach safely during intense exercise. To find your MHR, subtract your age from 220. Next, you need to know your Resting Heart Rate (RHR). This is the rate your heart beats per minute while resting. The best time to calculate the RHR is right after you get up in the morning or after a nap.

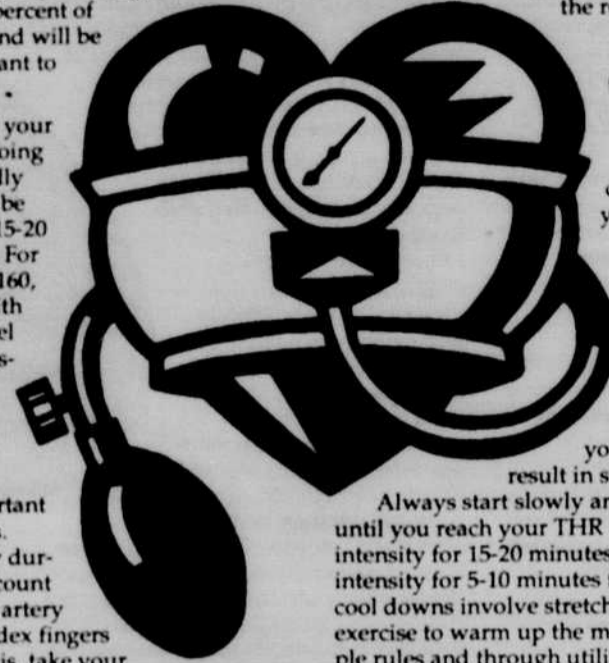
When you know both your MHR and your RHR subtract the MHR from the RHR and multiply this number by .65 and add the result to your RHR. This calculation

will tell you what your THR is at 65 percent of your maximum. Next, to find your THR at 80 percent you need to take the difference between the MHR and the RHR and multiply it by .80 and add this number to your RHR. These two numbers will tell you your Target Zone which will be at 65-80 percent of your Maximum Heart Rate and will be the "zone" which you will want to achieve during exercise.

Now that you know what your THR Zone is, what are you going to do with it? When aerobically exercising this zone needs to be reached and maintained for 15-20 minutes for optimal benefits. For example, if your THR is 130-160, running for 15-20 minutes with your heart beating at this level will maximize your cardiovascular fitness and your body will burn its fat stores most efficiently.

Learning to monitor your THR during exercise is important for health and fitness reasons. Monitoring your THR is easy during exercise with a 6 second count taken at the wrist or brachial artery by using your middle and index fingers to register the beats. To do this, take your pulse for six seconds, counting the first beat as zero, (i.e.

0,1,2,3,...) and multiply the number of beats by 10. This will give you an estimate of the number of beats per minute your heart is working. Please note that the 6 second count is not the most accurate method. The longer you take your pulse the more accurate the reading will be.



Keep in mind that it is important to periodically monitor your heart rate and to stay within your THR throughout your aerobic exercise. Also, if during any part of the exercise you begin to feel faint, dizzy, or any pain, stop exercising and walk around.

Before and after any aerobic activity you must warm-up and cool down. Never jump into a full fledged work-out without warming up your muscles. Failure to do so can result in strained or pulled muscles.

Always start slowly and gradually increase intensity until you reach your THR zone and then stay within that intensity for 15-20 minutes. Then gradually decrease intensity for 5-10 minutes for a cool-down. Warm-ups and cool downs involve stretching and moderate intensity exercise to warm up the muscles. By following these simple rules and through utilizing your THR during exercise, you will be able to become fit the safe and fun way.

Weights: not just for serious body builders



By Dana Ewing

Aerobic exercise elevates your heart rate over a sustained period of time. Anaerobic exercise involves short bursts of high demand activity. Along with proper nutrition and aerobic exercise, anaerobic activity is essential to being healthy. It increases our metabolism, protects our bodies from injury, and improves our self-image. Experts say that a combination of aerobic and anaerobic exercise is important for a fit and healthy body.

Anaerobic activity builds muscle fiber, which increases our lean body mass. Increasing our muscle size or lean body mass has many benefits. The most important is that it helps burn more calories. As lean body mass increases, the metabolic rate increases. Muscle tissue uses energy even at rest, while fatty tissue uses very little energy and burns fewer calories. A person with more lean body mass is able to burn calories easily during rest and exercise than their fatter counterpart.

Along with increasing metabolism, anaerobic activities help the body in other ways. For instance, building muscle in the abdominal and lower back help to prevent excess curvature of the spine. A strong back improves your chances of avoiding low back pain or injury. When the surrounding muscles are strengthened, joints are protected by improving shock absorption and stabilization capabilities. The increases of lean body mass make the bones stronger, which may aid in

resisting problems associated with osteoporosis. Fit muscles hold our bodies up straighter and help to maintain good posture. Strength is also a great value in improving personal appearance and self-image, in developing sport skills, and in meeting certain emergencies where strength is necessary to cope effectively.

There are many types of anaerobic exer-



cise. The most common form is weightlifting. Many people think that they will become too muscular if they lift weights, but it actually depends on how much weight they lift and how often. Many repetitions of a light weight will simply tone up a muscle, not make it bulky. You can get the same affect by doing sit-ups, push-ups, chair dips, leg lifts, squats, and other exercises in which the muscles are used to lift your own body weight. Covert Bailey, the author of *The New Fit or Fat*, writes that "Chin-ups are the classic weight-lifting exercise, requiring practically every

muscle in the upper body, from the wrists, arms, and shoulders to the back, and abdominal muscles all the way down to the pelvic girdle. A chin-up is one of the best weight-lifting exercises, yet it requires almost no equipment at all." Other forms of anaerobic exercise are sprinting and tennis, which require quick bursts of energy. Circuit training is a form of exercise that accomplishes both aerobic and anaerobic exercises in one workout. In a circuit training workout a person would move quickly from one weight-lifting position to another and periodically do an aerobic activity such as riding a stationary bike or jumping rope. There is no one best method for developing strength; the method selected must be determined by the individual's specific needs.

There are many different ways to improve muscular strength and many more resources to find out how to start and what to do. A great way to begin weight-training is to take a class. The instructor can show you the proper and safe ways to lift weights, and work with you until you are comfortable and familiar with the weights. There are also many magazines and books that give examples of different types of anaerobic activities, but be sure they are creditable. Many magazines give false information. Some magazines that I suggest are FITNESS and SHAPE. There are magazines geared specifically toward weight-training, but they primarily target serious body builders. The Health Education Office at Student Health Center is a great place to find information about anaerobic activities and how to incorporate them into your overall fitness program.

MYTHS

Continued from page 3

• Myth: Weight-lifters need protein supplements to "Bulk up."

Although protein is necessary for muscle growth, more protein is not always better. The body is capable of absorbing only so much protein before it begins to flush it out with other wastes. To ensure that you are including enough protein in your diet, maintain a healthy intake of a variety of foods and aim for 10-15% of your calories from protein. By keeping your diet balanced, you shouldn't have difficulties in getting enough protein.

If you feel that you are not obtaining enough protein for your activity level, protein supplements are available. However, first try to alter your diet to include more protein, such as including legumes and low fat dairy products, before you turn to supplements. If you are interested in examining your protein intake, drop by the Health Ed room at the Student Health Center. We have a variety of nutrition texts and articles that can help you make more informed choices.

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Information and resources for well-being

Contact Resolution

University Counseling Center
13th Street at Agate 346-3227

UO Crisis Center hotline
346-4488 24 hours a day

Sexual Assault Support Services
484-9795

U of O Mediation Program
EMU Room 318
346-4240

Office of Student Advocacy
EMU 318 346-3722
Women's Resource
and Referral Center
Suite 3 EMU 346-3327

Office of Academic Advising
and Student Services

164 Oregon Hall 346-3211

Career Planning and Placement
244 Hendricks Hall 346-3235

Center for
Academic Learning Services
68 PLC 346-3226

Harassment and Discrimination Concerns

Office of Affirmative Action
474 Oregon Hall 346-3123

Office of Public Safety
Straub Hall 346-5444

Student Conduct Coordinator
364 Oregon Hall 346-1141

Coordinator Gay, Lesbian,
Bisexual Concerns 346-1142

Lesbian Gay Bisexual Alliance
346-3360

Financial Concerns

Office of Student Financial Aid
260 Oregon Hall 346-3221

Student Employment Office
12 Hendricks Hall 346-3214

Physical Admitts

Student Health Center
13th Street at Agate 346-4441

Health Information

Health Education Program
346-4456

Physical Therapy and Sports
Medicine 346-4401

Slocum Sports Medicine Lab
346-4147

Sports and Activities

Club Sports 346-3733
Recreation and Intramurals

346-4113