

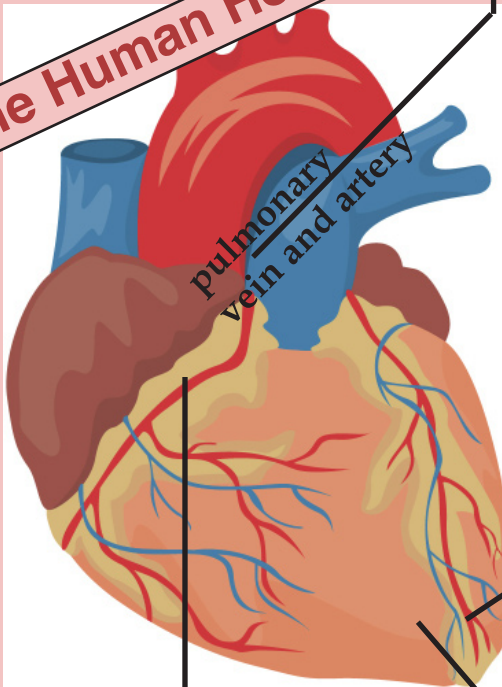
People with - or at a high risk of - heart disease need to be wary of low temperatures while exercising outdoors. Low temperatures cause an increase in arterial [through the arteries] blood pressure by “augmenting myocardial oxygen requirement” (Wilson, et. al, 366). This same idea of oxygen deprivation can occur at high altitudes while mountain biking. The result is an increase in the number of red blood cells, increasing blood viscosity and reducing oxygen in the blood (367).

Monitoring your recovery heart rate is just as important as keeping an eye on the maximum rate during the workout. The more in shape you are, the faster you should recover to your normal heart rate. However, it’s not abnormal for your heart rate to still beat at an increased rate for as much as a week after a workout. If this happens, falter from the routine - your body needs more time to recover. At the same time, skipping recovery days in your workout routine may cause you to have difficulty reaching your maximum heart rate during a ride. This is sign of overtraining, and more recovery time is needed here, too (The Lance Armstrong Performance Program, 61).

Heart Rate

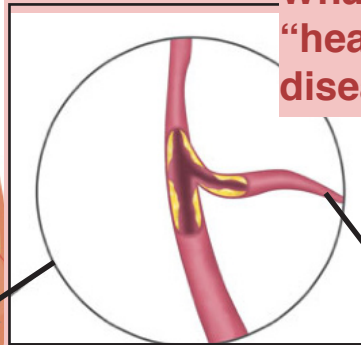
Lance Armstrong strongly recommends that every serious cyclist carry a portable heart rate monitor [HRM]. The HRM allows the cyclist to determine the intensity of his/her workout. He suggests first pin-pointing a maximum heart rate during exercise, then recognizing how the rate normally fluctuates on hills and slopes. “They [HRMs] keep me in my upper aerobic capacity to avoid crossing my lactate threshold, which is when the body can no longer process oxygen quickly enough to remove waste products associated with energy production...I stay in the range of 160 to 164 beats per minute,” Lance Armstrong, The Lance Armstrong Performance Program, 59-60.

The Human Heart



What is “heart disease”?

Cardiovascular Disease or “heart disease” is the leading cause of death for both men and women in the United States. Maintaining a healthy weight and exercising regularly greatly lowers the risk of heart disease. Atherosclerosis, a cause of heart disease, is the hardening of arteries from fat and plaque build up. This restricts oxygen and nutrient-rich blood flow to the heart, increasing risk of heart attack. Routine physical activity enhances blood flow, removing bad cholesterol and decreasing the build up of blood lipids in the arteries (WebMD). Though the body does need some fat, most calories should come from carbohydrates, which carry less health risks and operate as a fuel source for high-intensity exercise (Baker, Bicycling Medicine).



“Any autoimmune disorder would benefit from cycling because cycling improves [blood] circulation, which improves the circulation of immune responses. The immune system circulates by muscle contractions, so you have dual benefits from cycling. Muscle contractions from the actual spinning activity [on a bicycle] stimulate an increase in immune responses. This can apply to cancer patients, who need a healthy, well-boosted immune system,” Janet Karanevich-Dono, APN

Heart muscle becomes damaged from Atherosclerosis, common in obese and overweight people. The narrowed arteries and veins deny oxygen to the heart’s muscle tissue, causing the tissue to die and the heart to weaken. The impact of regular exercise on the development and strengthening of leg muscles and other muscles utilized for body movement is visible. However, the healthy heart muscles and efficient blood circulation supported by exercise and proper nutrition remains unseen. Overweight individuals have an increased risk of several different cancers including, but not limited to breast, bowel and aggressive prostate cancers. Studies suggest that regular exercise may also help to reduce the chance of many cancers coming back after a period of remission (Cancer Council Victoria 2009).