

We have all heard that exercise is one way to help reduce high blood pressure. This is partially due to the extra blood and blood vessels required to feed the adipose or fat tissue. All living cells require oxygen and other nutrients. These vital substances are carried to the cells by our blood. The more adipose tissue the body has, the more blood vessels are necessary to deliver nutrients. The more blood vessels there are, the more pressure is needed to push the blood through. When the body size grows, the heart doesn't grow proportionately to match the need for more blood, so it has to work harder and pump with more pressure.

Exercise can help reduce blood pressure by burning up some of that stored excess fat. This reduces the size of the body and reduces the amount of blood needed to feed the fat cells. There is another mechanism by which exercise lowers blood pressure and it has nothing to do with losing weight.

In preparation for the Olympics, many athletes train at higher altitudes. At higher altitudes, there is less oxygen. In time, the body adapts to this leaner air by improving the efficiency by which it carries oxygen in the blood. When the athlete returns to sea level, that efficiency remains elevated for a period of time and the athlete doesn't become "winded" as quickly.

This amazing adaptability is at work even when not at a high altitude. When we exercise, our cells become more efficient in their ability to absorb oxygen and nutrients. This increased efficiency is still present when we are not exercising. If our cells are able to absorb oxygen more efficiently, less blood is necessary to carry the oxygen. If less blood is needed, then less pressure is needed to push the blood.

As long as we exercise regularly and exercise to the point that we get "winded" or to the point that our muscles are fatigued, our cells will become more efficient and maintain that efficiency. Of course if we discontinue exercising or do it less regularly, our bodies will re-adapt and become less efficient at transferring oxygen. This could cause the blood pressure to inch higher.