# Smoking and Bodybuilding

I assume you started working out because you want to be healthy, not make your body rot from the inside out! Over the years I have trained many smokers, and have found out the biggest reason they ended up quitting was the negative effects smoking had on their performance. With bodybuilding, a reduction in workout performance means less muscle building results and thus an inferior physique. This reduction in performance is compounded by the fact that smoking directly destroys all of the body's cells. This includes muscle cells!

Smoking Has The Following Negative Impact On Performance:

* Smoking reduces fitness levels through irreversible respiratory-system damage: This means that one cannot train as long, and the quality of training they do engage in is compromised. Smoking has an immediate effect on respiration, increasing airway resistance and therefore reducing the amount of oxygen absorbed into the blood.

* Often the determining factor, that allows one to succeed in bodybuilding, is whether they can complete that all important final rep, or that extra half-an-hour of cardio. Smoking significantly reduces the likelihood of either of these things. Smoking slows down lung function and reduces lung growth, leaving the smoker literally gasping for air when they need it most.

* The heart-beat of a smoker is 30% faster, on average, than that of a non-smoker: This forces the body of the smoker to expend more energy (in the form of heart-beats) to keep up with their non-smoking counterparts. This faster heart-beat is due to the stimulating effect of nicotine. The resulting increase in heart-rate, and blood pressure, paradoxically, decreases the flow of blood through the blood vessels, and this, in turn, reduces performance.

* Those who smoke produce phlegm more than twice as often as non-smokers: Phlegm builds up in the airway and prohibits correct respiration (breathing). This is because smoking causes chronic swelling of the mucus membranes.

* Tobacco significantly reduces oxygen availability to the muscles during exercise: Carbon monoxide in tobacco smoke has a higher affinity to hemoglobin (an oxygen carrying molecule in the blood) than does oxygen. Smoking, therefore, encourages the replacement of oxygen with carbon monoxide and, resultantly, causes oxygen depletion and a corresponding reduction in performance.

Carbon monoxide has a two-fold negative effect, in that it reduces the amount of oxygen absorbed into the blood from the lungs, and the amount that is absorbed into the muscles from the blood. Oxygen is important for the functioning of all energy systems in the body, so any mechanism which interferes with oxygen transport and uptake interferes with energy production, and therefore, athletic performance.

* The tar in cigarette smoke adds to airways resistance. This tar coats the lungs, reducing the elasticity of the air sacs and resulting in the absorption of less oxygen into the bloodstream.

* Tar also affects the cleansing mechanism of the lungs, allowing pollutants to remain in the bronchial tubes and lungs. Increased phlegm and coughing, and damage to the cilia (the hair-like projections which "sweep" pollutants out of the airways) are the result.

* Decrease in maximal oxygen intake... Although exercising can increase maximal oxygen uptake by up to 20%, smoking can reduce this effect by up to 10%.

* Research also shows that cigarette smoking probably damages cells in the testes - the cells that synthesize testosterone. Testosterone levels within the body govern the muscle growth process from training. Thus, smoking may well hinder optimal testosterone production and interfere with the body’s capacity to build muscle.

* Another recent study examined the effects of smoking on exercise recovery. Chronic exposure to the nicotine in cigarettes leads to insulin resistance, making nutrient transport into muscles and other tissues more difficult. This study demonstrated that the muscles of young men who smoked, recovered a lot slower from exercise compared to non-smokers. Results showed that smoker’s muscle glycogen replenishment rates were much slower compared to non-smokers. This means that smoking directly interferes with insulin/glucose metabolism in muscle. The bottom like here is that smokers do not recover efficiently from exercise.

To Conclude: Smoking is linked to cancer, cardiovascular disease, heart damage, inadequate testosterone levels and poor insulin metabolism; these factors must equate to poor results from bodybuilding.