

CU SPORTS MEDICINE

Diet Pills: *Fat-Burning or Risk-Taking?*

Companies market diet pills as a quick fix to a long-term problem. Claims such as “lose weight without dieting or exercise” make the pills sound like the perfect solution. But should you believe these claims? It can’t be that simple, and it’s not! Before you decide to purchase diet pills, stop and ask yourself these important questions:

1. Are these products regulated so I know what I’m getting?
2. What are the ingredients and how do they work?
3. What are the side effects or potential drug interactions?
4. Do they promote safe and long-term weight loss?

Here’s a head start with the answers...

Product Regulation and Safety

The 1994 Dietary Supplement Health and Education Act allowed companies to make and market diet pills without any government regulations. This means that **THERE IS NO GUARANTEE** the product:

- will do what it is marketed to do
- contains the ingredients listed on the side of the bottle.

Several studies have shown that up to 30% of bottles are not labeled correctly. Another study showed that one particular product did not contain ANY of the active ingredients listed on the bottle. Some products contain steroids or chemicals like lead and mercury, which should NEVER be unknowingly consumed. The bottom-line is “You can’t trust what is written on the bottle.”

The Ingredients

Three main ingredients make up the majority of diet pills on the market today. Used together they are often referred to as “stacker pills.” This is because they exert a more powerful effect together than when used alone. However, the health risks become dangerously high. You may have heard advertisements for these weight loss pills on TV or radio as the “best” fat burner on the market. Below are descriptions of the ingredients, including the synthetic and naturally occurring chemicals, and how they function in the body.

Ephedrine, Ephedra and Ma Huang

The main component of the stacker-type pill is ephedrine, also known as ephedra or ma huang. Ephedra has been taken off the market in the United States due to its dangers. The effects of ephedrine, ephedra, and ma huang are nearly identical. They stimulate the central nervous system (CNS). This means that they increase certain chemicals in the body that control mental awareness, heart rate, respiration, metabolism, blood pressure, and other primary processes. This leads to an increase in energy expenditure due to the chemicals and causes temporary loss of appetite. However, once a person discontinues the ephedra product, his or her metabolism will slow down beyond the initial rate. This leads to rapid and significant weight GAIN. Ephedrine is also addictive, so you need more and more to keep experiencing the same effects.

Caffeine and Guarana

Another ingredient used in diet pills is caffeine or guarana. Guarana, a plant found in Brazil, contains 2 to 4 times more caffeine than regular coffee. Caffeine is also a CNS stimulant, and it reacts with other chemicals to enhance the effectiveness of ephedrine. The body's response to caffeine is individual. For some it may cause shakiness, heart palpitations, and low blood sugar levels. For others it may enhance athletic performance.

Aspirin and White Willow Bark

Aspirin (also known as white willow bark) is commonly used as a pain reliever and to reduce heart attack risk. However, it has other dangers when used along with certain drugs. The combination of caffeine and aspirin boosts the effects of ephedrine, making ephedrine's possibly dangerous effects even more dangerous. Be sure to talk to your doctor if you're taking vitamin E, Coumadin®, or other blood thinners.

Side Effects

Side effects from these over-the-counter medications can range from mild and irritating to deadly. Possible side effects include:

- trouble sleeping
- headaches
- nervousness or jitters
- diarrhea
- high-blood pressure
- dehydration
- mood swings
- paranoia
- psychosis
- heart palpitations
- irregular heartbeat
- heart attacks
- strokes
- seizures
- increased risk of complications during surgery
- possible death

WARNING: *If you suffer from or have a history in your family of certain diseases or ailments such as high-blood pressure, heart disease, or stroke, or if you are pregnant, nursing, or using MAO inhibitors, you may be at even greater risk for these side effects.*

The Bottom Line

With or without the addition of diet pills, an overweight person **MUST** modify diet, exercise, and lifestyle in order to effectively lose weight and keep it off. Adding a stacker-type pill may be temporarily **MORE** effective than just diet and exercise, but **AT WHAT COST?** The health risks and long-term effects of using such products are potentially worse than just sticking to diet and exercise alone. Anyone taking this risk should be under the close supervision of a physician. The professional staff at the CU Sports Medicine Practice does **NOT recommend the use of these products.**

FYI

- The FDA has linked 80 deaths and 800 adverse reactions to ephedra since 1994.
- You don't have to be a long-term user to suffer adverse reactions. People using these pills for only a couple of weeks have suffered devastating health effects.
- Due to possible risks Health Canada recently announced a recall of all ephedra stacker pills and all pills that claim to suppress appetite and increase metabolism.
- Ephedra is a banned substance for athletes competing in NCAA intercollegiate sports. It is also banned for those training for and competing in world championship and Olympic events.
- The NFL recently banned the use of all ephedra products after several players experienced adverse reactions. Ephedra and steroid violations get the same punishment, including a four game suspension for first time offenders.
- The NBA is considering a similar ban.