

### **Yohimbine (Ioimbina)**

Yohimbine is an alkaloid found in the inner bark of a tree that grows in southern Africa, *Corynanthe yohimbe*. Yohimbe has been used for centuries as an aphrodisiac, and alkaloids derived from this tree have been studied in depth. Yohimbine is now used primarily in veterinary medicine and in the treatment of erectile dysfunction, and it is also useful in the treatment of obesity.

#### **What application does Yohimbine have?**

Yohimbine has not been researched as thoroughly in the area of fat loss as many other weight loss aids, especially where clinical trials are concerned, but the existing data is promising. A 3-week study in 1991 on 20 obese females on 1000 calorie diets found that 20 mg of Yohimbine daily increased weight loss 3 lbs. over placebo. Multiple studies have found that Yohimbine increases the amount of non-esterified fatty acids (NEFAs), a product of lipolysis (the breaking down of fat), in the bloodstream in both lean and obese individuals and that this effect persists for at least 14 days, indicating that rapid tolerance does not develop. Yohimbine is also an appetite suppressant, and decreases energy intake in both lean and obese mice.

#### **How does Yohimbine work?**

Yohimbine works by blocking alpha adrenoreceptors. There are a number of feedback mechanisms that prevent the release of norepinephrine (NE), one of the body's primary lipolytic hormones. When NE is released, such as in periods of stress or after taking a sympathomimetic (such as ephedrine), it stimulates both the alpha and beta adrenoreceptors. Stimulation of the beta adrenoreceptors causes the breakdown of fat while stimulating the alpha adrenoreceptors has the opposite effect, preventing the release of NE and lipolysis. Yohimbine prevents this negative feedback mechanism, thus increasing NE release and lipolysis.

There are a number of reasons why alpha inhibition is specifically useful. First, while the beta-adrenergic system primarily controls lipolysis during periods of intense activity, during rest, which makes up most of our day, the alpha-adrenergic system is in control. Also, "stubborn fat" areas – usually the abdominal area in men and the gluteofemoral area in women – contain a higher ratio of alpha receptors, making Yohimbine particularly effective in these areas (whereas other drugs that increase NE may be somewhat counterproductive). Finally, alpha blockade increases blood flow in adipose tissue, which prevents fat from being retained in the area.

#### **What other benefits does Yohimbine have?**

Aside from being a fat loss agent, Yohimbine is well known as a sexual stimulant. Studies indicate that it increases copulatory behavior and reduces sexual exhaustion in male rats. A recent review of the literature found that Yohimbine, especially in combination with drugs that facilitate the action of nitric oxide, is effective in the

treatment of male erectile dysfunction, and a study in women found Yohimbine combined with L-arginine glutamate to increase sexual arousal in women with sexual arousal disorder (12). Yohimbine also slightly raises serum testosterone levels in men (13).

### **What are the side effects of Yohimbine?**

Anxiety is the most common side effect seen with Yohimbine, especially higher doses, and for this reason it should not be used by individuals prone to panic attacks or with stress-related disorders. Other common side effects are increased heart rate and blood pressure, although these do not appear to be a problem at the doses used for weight loss (2, 3). Other side effects associated with elevated levels of NE, such as insomnia, can also be expected. All of these side effects disappear after termination of use (11).

### **What Is The Use of Yohimbine (Ioimbina) in Mesotherapy?**

It is excellent for targeting located fat.

#### **Packaging**

0.5%/1ml. Box of 10 Vials