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## Weight management and appetite suppression formula Pro-Slim Reducer

Weight Loss Formula Pro-slim Reducer (PSR) produces a combination of physiological effects, which safely mediate the loss of excess body fat and water retention. This formula was clinically tested in a single blinded, placebo controlled study and shown to be effective in producing moderate weight loss. Specific herbs in the product stimulate metabolic activity, increase elimination of excess fluids and help to improve digestion and assimilation of nutrients.

The formula contains the following herbs: Eleuthero, White Atractylodes , Red Atractylodes , Green Tea, Corn Silk, Rhubarb , Senna , Laminaria Thallus, Mandarin Peel, Ginger , and Kudzu Root .  
*(Other herbs have secondary effects and support or balance the actions of the major herbs).*

### Eleuthero:

This herb has a positive effect on the metabolic state through maintenance of normal glucocorticoid activity of the adrenal glands and increased brain catecholamine neurotransmitter formation, both important for energy production and motivation of physical activity (Huang, 1999; Murray, 1995). This herb is well known as an adaptogen to help with better withstanding stress during adverse conditions. The adrenal gland becomes exhausted during periods of chronic stress leading to reduced output of hormones. Siberian Ginseng reduces the adverse effects of chronic stress on the adrenal glands helping to preserve its healthy function. (Murray, 1995). Saponin compounds in Siberian Ginseng bind to glucocorticoid receptors explaining some of the adrenal effects (Pearce, et al. 1982). In a large clinical study of more than 2,100 healthy subjects, Eleuthero was found to increase work output, mental alertness and athletic performance (Werbach, Murray; 1994). A placebo controlled, cross over human study showed increase VO<sub>2</sub>max (oxygen consumption indicative of metabolic output) during maximal work performance (Werbach, Murray; 1994).

The ergogenic effects of Eleuthero are based on improved work output and endurance:

- Eleuthero causes higher oxygen plateau in ergospirometric tests of pulmonary function compared to the control group (Szolomicki J, et al. 2000).
- Improves glycogen utilization; increases high-energy phosphate compounds; and increases the metabolism of lactic acid and pyruvic acid during stress (Newall C, 1996).

Physical activity is an important component of weight reduction and Eleuthero supports healthy physical activity through its overall adaptogenic and ergogenic properties.

### White Atractylodes:

This herb contains small amounts of a mild aromatic essential oil comprised chiefly of atractylone and atractylol. This herb influences the digestive system by reducing the activity of the stomach (Xie, 1996). Reduced activity of the stomach and delayed emptying of food contents creates a prolonged sensation of fullness and satiety, leading to reduced appetite and consumption of food.

### Red Atractylodes:

It strengthens the spleen, important for healthy digestion according to traditional Chinese medicine (TCM), and is helpful for indigestion and for stabilizing an irregular appetite (Xie, 1996). Indigestion can cause sluggishness and fatigue resulting in reduced physical activity and calorie burning, demonstrating the essential contribution of digestive tonics for promoting weight loss.

In addition, when the body is not assimilating all of the vitamin, mineral, and amino acid nutrients important for metabolism, the result may be fatigue and a nutritionally deficient state. This can lead to people over-eating in an attempt to get the nutrients they are lacking. This can be supported by the fact that insufficient availability of protein leads to hypoglycemia, which results in craving and binging of sugar and carbohydrates.

A lack of iron has been shown to also cause cravings. Recent research on Green Tea has found that the polyphenol compounds promote thermogenesis or increased metabolism, which is not attributed to the effects of caffeine. The degree to which calorie burning was stimulated was an 8% increase over the normal rate. Larger amounts of the energy stimulating catecholamine, norepinephrine, was found excreted in urine and an increase in fat catabolism (breakdown and utilization in metabolism) was found to occur over a prolonged 24 hour period. (Dulloo, et al.; 1999).

### Green Tea:

This contains methyl xanthine compounds, which have a mild diuretic effect, helping to reduce excess water retention. Although Green Tea does contain caffeine, it is significantly less per serving than coffee and contains an additional factor called theanine that has a calming effect to offset the stimulant actions. Inasmuch as there is a small amount of caffeine, it may have some value in increasing energy metabolism by its effect in promoting physical activity.

The other supportive herbs used in the formula have primarily toning actions on digestive function, diuresis, and thyroid gland activity for ensuring optimum metabolism.

### Corn Silk:

This is used in traditional Chinese medicine as a safe and mild diuretic (Hsu, 1986).

#### Rhubarb and Senna:

They are used in small amounts to have mild effects for promoting peristalsis and preventing constipation, helping to alleviate the sluggishness and fatigue that occurs with irregularity (Hsu, 1986).

#### Laminaria japonica:

This is a rich source of iodine that supports healthy thyroid function.

#### Citrus peel:

This herb helps digestion as a stomachic, and alleviates food stagnation and indigestion (Hsu, 1986).

#### Ginger:

It has a warming effect, or induces thermogenesis, through increased secretion of adrenal catecholamines (Kawada, et al. 1988). It also has anti-nausea effects and is a carminative to assist in digestion.

#### Kudzu:

It is used to dispel "heat" or burning in the stomach.

All of these beneficial properties for supporting healthy digestion are thought to be fundamental for a strong metabolism and physically active state - crucial for stimulating weight loss.

The herbal ingredients in PSR Weight Loss Formula work together to promote a healthy, vigorous metabolism and reduction in appetite leading to fat loss, increased energy and a renewed sense of well-being.

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