



ELEUTHEROCOCCUS SENTICOSUS

Fortifies resistance through
the power of nature...

One of the most remarkable natural discoveries which has now been scientifically proven to be of value is the root of the *Eleutherococcus senticosus* plant.

Eleutherococcus senticosus has well over 1,000 research papers internationally to its credit and is a leader in the field of natural effective and safe medicinal plants. The Russians, Germans and Americans have used *Eleutherococcus* for many years, however it is only comparatively recently that *Eleutherococcus* has been brought in high quality form to the UK.

WHAT IS ELEUTHEROCOCCUS?

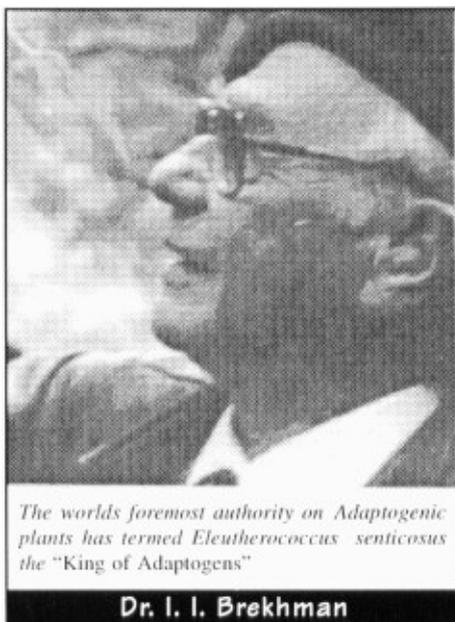
Eleutherococcus is an immune system regulator which was first formally classified in 1855 by the director of St Petersburg botanical Gardens, Carl Maximovich, who brought back samples of the shrub from Eastern Siberia. The full classification name of "*Eleutherococcus senticosus* Maxim" was given with the genus name of *Eleuthero* meaning 'tree berried shrub' and the species name *senticosus* meaning 'thorny', and *Maxim* to honour Maximovich himself.

For centuries the people of Eastern Siberia and the adjoining provinces used and prized the roots for their *restorative and healing properties*. We have Prof Israel Brekhman to thank for introducing *Eleutherococcus* to the rest of the world.

In the 1950s Prof. Brekhman of the pharmacological department of the Far East Scientific Centre of the Russian Academy of Sciences recognised the potential value of the root and initiated extensive research into its properties. He discovered that *Eleutherococcus* particularly helped to strengthen the immune system, reinforcing the body's response to stress, increasing physical endurance, improving recovery from illness, helping to prevent viral infections (such as colds and 'flus) and generally acting towards normalizing any abnormalities in the system, not only this but he found that *Eleutherococcus* was remarkably without any side-effects.

ADAPTOGENS

Brekham classified *Eleutherococcus* as an '*Adaptogen*'. An adaptogen is a natural plant substance which acts to normalise the body's systems in harmony with the normal metabolic, biochemical and immunological processes. As such, adaptogens are innocuous and cause no harm. Adaptogens should have a non



specific action, and such is the ability of *Eleutherococcus* to modulate stress and improve performance under a wide variety of stressful conditions. *Eleutherococcus* has been referred to as '*The King of Adaptogens*' because of all the known adaptogens, *Eleutherococcus* best fulfils the classification.

ELEUTHEROCOCCUS...IT'S USES

The main area of extensive research and usage is the immune system. The immune system is our main defense system against infections and more serious illnesses, and its efficiency can become lowered as a result of many everyday problems, including *stress fatigue, toxins, pollution, infections and even strenuous physical activity*. *Eleutherococcus* helps to maintain the immune system at its peak efficiency and to protect it from any harm.

German and Russian research shows that it can increase the numbers and efficiency of T lymphocytes (especially T-Helper cells) in both healthy 'normal'

people and in the sick, strengthening and preserving immunity.

During the 1970s research included a 2-year study with 1,250 workers at a Russian Car Factory, looking at the incidence of colds, 'flus and general ill health. This showed that the percentage of sick workers was reduced by significantly greater than 30% amongst those taking *Eleutherococcus* as compared to the control group.

As an adaptogen *Eleutherococcus* is

Eleutherococcus helps...

Strengthen and protect the immune system, prevent infections and speed up convalescence, reduce the harmful effects of stress and alleviate fatigue. It helps protect the body against toxins, chemicals, pollution and radiation as an antioxidant.

also very effective in alleviating the effects of stress. By moderating the stress response it helps to allay the harmful exhaustion phase of the stress response and to protect the body from stress.

WHO USES ELEUTHEROCOCCUS?

Anyone can use *Eleutherococcus*...it is used by athletes (including the *Russian Olympic teams*) to help to support and maintain maximum physical fitness; and most importantly to speed up the recovery processes and strengthen immunity during periods of intense physical training.

Eleutherococcus is used exclusively by *Russian cosmonauts* as the **only** medicinal plant substance they are happy to take because of its safety record and its amazing ability to help them to adapt to the profoundly stressful raining for the extreme environment of weightlessness in Space.

Everyone can use *Eleutherococcus* to alleviate fatigue, to prevent viral illnesses, to support and maintain good health and to help memory and concentration.

People who are *sick or recovering from an illness* can use *Eleutherococcus* to help to boost the recovery processes, improve

their general sense of wellbeing and to strengthen immunity.

HOW ELEUTHEROCOCCUS WORKS

The Eleutherococcus root contains a selection of *active ingredients*, identified as glycosides (*Eleutherosides*) which are unique to the plant. They are believed to act synergistically so it is essential for all the Eleutherosides to be present for full activity to be retained. The exact mechanism of action is unclear, although it



is believed to be at the cellular level. The principal Eleutherosides are Eleutherosides B and E, these are a glycoside of syringine and a di-B-D glycoside of syringaresinol respectively.

HOW LONG DOES IT TAKE FOR ELEUTHEROCOCCUS TO WORK?

Eleutherococcus starts to work from the first dose, however its effects are accumulative and full effectiveness is not reached until *three* months of initial use. There are no known problems associated with long-term use, and it is non-addictive.

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What to look for when choosing an Eleutherococcus product

Standardisation

Surprisingly few medicinal plant products are standardized, unlike proprietary medicines such as Aspirin and Paracetamol. *Standardisation is the only way by which the amounts of active ingredients in an extract can be measured and quantified to give an accurate and consistent dose.* Standardisation of Eleutherococcus is done by HPLC (specialized chromatography) against Eleutherosides B and E to guarantee an effective level of all the ingredients in every dose.

The Lancet

This problem of the lack of quality control in herbal preparations was high-lighted recently in *The Lancet*

(July 1994). Of fifty commercial preparations tested six contained none of the purported herb and the remaining forty-four contained only 1.9% to 9% weight-on-weight of the specified herb. Once again this emphasises the necessity of insisting on a fully standardised product.

Imagine if you were buying a box of Paracetamol and you were faced with a selection of products of indeterminate strength, some of which had not been quantified and contained little or no Paracetamol and some of which had known amounts of Paracetamol within them. Which would you buy? The same goes for Eleutherococcus: *always look for a standardized product* or you may not get any Eleutherococcus at all!

Extraction

To reap the full benefits of the Eleutherococcus root all the active ingredients from the root must be present. By specialised extraction processes (which do not involve the use of any chemicals or harmful substances) all the ingredients of the root can be retained unaltered and separated from the dirt and fibrous material of the root. By this process we can preserve all the natural goodness of the root in concentrated form ready for standardisation.

Concentration

Concentration simply allows the exact dose of extracted product to be incorporated into a smaller and more convenient to take capsule than would otherwise be possible. It is important to check the capsule size and capsule root equivalent rather than the number of capsules or price, as this is the best way to ensure you are getting good value.

The supreme source

The most widely researched and most acclaimed source of Eleutherococcus is the Primorsky region of Eastern Siberia. Whilst Eleutherococcus does grow in the adjoining provinces of China and Korea, it is the exacting climate and



the organically rich soils of Eastern Siberia which favour the highest quality roots with the best levels of active ingredients.

Confusion!

Certain confusion arises because Eleutherococcus is sometimes wrongly given the name of 'Siberian Ginseng'. This was because Eleutherococcus does have some properties in common with Ginseng and has been called this for familiarity. Eleutherococcus however has different active ingredients and a different way of acting and is not a stimulant, unlike Ginseng.

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