

## The Myth of the Human Growth Hormone Nasal Delivery Spray

### Life's Holy Grail?

For centuries, people have sought the answer to one of the most prominent questions of human life: Can We Live Forever? Well, that is probably rather unlikely but what is not quite so far fetched is the clinically proven effect of Human Growth Hormone (HGH) treatment. For all intents and purposes, HGH treatment can slow, stop or even reverse the effects of the ageing process! Since the first viable synthesis of effective rHGH (Recombinant, meaning synthetically produced from human DNA splicing techniques, HGH), the frenzied race of the pharmaceutical-wannabes has been on in an effort to create a cheap version of HGH. The results of this rampage have led to the unfortunate production of many bogus supplements and ineffective methods of administering unrelated chemicals in an effort to achieve (or claim to achieve) the same or similar effects as HGH. One such ineffective product is the HGH nasal delivery spray. This method of administering HGH is unviable for a multitude of reasons, as will be discussed here.

### Structure of HGH

The Human Growth Hormone is a protein-based structure that is produced by the pituitary gland, located at the base of the human brain. It is a complicated 3D molecule composed of 191 amino acids (the building blocks of proteins and thus all living tissue) in a very specific order and configured in a certain way. The links between these amino acids are, in some places, extremely weak, making the HGH molecule very susceptible to breakage. HGH is also the largest of all the hormones produced by the body, amassing to a molecular weight of 20,000.

### Analysis of HGH Nasal Delivery

Many companies wanting to cash in on the HGH buzz have developed a growth hormone spray, claiming it to be more effective and less costly than the FDA approved HGH injection, such as GeneScience Pharmaceuticals' 'Jintropin'. These HGH Sprays simply do not do what they claim to, for a number of reasons.

Administering such growth hormone sprays involves a short burst of the product sprayed into the nasal cavity, where the product is supposedly absorbed through the lining of the nose and passes into the blood stream to be carried to specific receptor sites. To start with, the HGH molecule is too big to pass through even the thin lining of the nasal cavity. In addition, such a spray would assumedly be kept in liquid form. HGH when dissolved in solution loses its structural integrity. The specific 3D configuration of HGH is necessary for correct interaction with the receptor sites in the body, much like a lock and key mechanism. If the shape of HGH is changed, as in dissolving, the molecule becomes unacceptable to the receptor sites, thus proving ineffective.

Liquid HGH is also very sensitive to heat, losing potency if not kept at a temperature of 2-8 degrees, much cooler than most consumer refrigerators, even then becoming useless after around 20 days. Its sensitivity also extends to vigorous movements, such as shaking, which can shatter the fragile links between atoms of the molecule.

The claims made by producers of these HGH sprays involve complicated and unjustifiable reasoning in the ingredients used. These growth hormone sprays, also known as HGH Releasers, contain a multitude of amino acids, apparently those found in the HGH molecule, the claim being that they will stimulate a minor boost in the natural production of HGH. That's fine for a 20 year old whose HGH levels are already high, although why would they need the product anyway? As for someone older, the supposed increase in production would be so small as to be almost insignificant, as normal HGH production would be significantly less than that of a younger person.

Such a supply of various amino acids is not targeted towards HGH effects as the same set of amino acids can also stimulate the hormone controlled production of adrenal cortisone, to name but a few, which actually increases the ageing process!

HGH Releasers as found in HGH nasal delivery products also tend to contain animal brain parts under the assumption that including parts of animal brain pituitary glands they are including tiny amounts of HGH. Firstly, HGH is called so because it is a Human growth hormone. You cannot obtain HGH from an animal. Secondly, it is very widely known that brain tissue is the main cause of the human form of mad cow disease, Creutzfeldt - Jakob disease (CJD).

Most importantly of these contradictions is the plain and simple fact that the Food and Drug Administration (FDA) has classified HGH use for doctor prescriptions only. Supplements are not approved or disapproved of by the FDA, but any product containing a significant amount of HGH is classed as a drug. This means that any supplement contains insufficient HGH to be effective and any product claiming to contain significant amounts of HGH are either lying or breaking the law!

Educate yourself

The only safe and effective way of receiving HGH treatment is via injection under prescription from a doctor. One such reliable and commonly used product is Jintropin (GeneScience Pharmaceuticals), which supplies 75% of China's demand for HGH. With the mounting hype and ridiculous claims made by companies wishing to profit from ill-informed consumers, it is important to research any HGH product fully. Talking with your doctor or pharmacist will help to answer any questions you may have and avoid wasting money on useless and potentially harmful products, such as HGH nasal delivery sprays.