**Smooth Mind: Why Botox might be the best solution for headaches:**

Botox has an image problem. Despite media scare stories, Botox has become one of the most popular anti-ageing treatments in modern times, but is still kept a closely guarded secret by many an ageless celebrity. This snobbery has dented its medical credibility with the public however. But at last Botox has reinvented itself – it is now regarded as the most effective treatment for chronic migraines!

The difference between migraines and headaches

Most of us have experienced a headache at some point in our life, but migraines only affect 10-12% of the population. The intense nausea and throbbing is far more debilitating than a headache and can really affect the sufferers quality of life. Those who are sensitive to light, smells and noise may also experience an aura (a visual distortion) and slurred speech.

There is no cure because scientists aren't sure what causes migraines

Certain triggers (either mental, physical or emotional) seem to reduce levels of the brain chemical serotonin. This in turn could cause blood vessels in the brain to spasm and dilate, pressing on certain nerves, which then send pain signals to the headache site.

Migraine sufferers also seem to be extra sensitive to triggers such as certain foods, stress, muscular tension (we all tend to hold tension in our shoulders), tiredness or sensory overload from strong flavours, bright lights or loud noises. The vast majority of sufferers are women, so female hormones are a major trigger and there is often a genetic connection.

**Botox is still seen as a last resort.**

Migraine sufferers are initially prescribed stronger painkillers, but they can build up a tolerance which ironically can trigger headaches. There are preventative options for those who experience regular migraines:

Antidepressants:

Increase levels of of the brain chemical serotonin.

Beta-blockers:

Reduce the release of pain messages from nerve endings.

Anticonvulsant medications:

Suppress activity of brain cells. However, the side effects include weight loss and pins and needles.

Botox is seen very much as a last resort, possibly because of cost. To qualify for Botox, the patient needs to suffer from at least fifteen headache days per, of which eight are migraines, and have tried other preventative medication.

**So how does Botox cure the pain of migraines?**

Cosmetically, Botox blocks the nerves sending information to the facial muscles, which paralyses them. So if you can't frown, you can't get a frown line. But no one is really sure how Botox blocks the pain signals that lead to a migraine.

Theory 1

Botox blocks chemicals called neurotransmitters that carry pain signals from the brain before they get to nerve endings at the headache site. It also possibly blocks sensory overload information from the muscles in the face, scalp and neck which can trigger migraines.

Theory 2

The less popular theory is that it works the same way as it does cosmetically and relaxes overactive muscle surrounding the head from pressing on the nerve and triggering a migraine (a muscle spasm).

**History of Botox**

Botox type A is a purified nerve toxin (poison) derived from bacteria which causes paralysis of muscles. Botox has been used medically for decades, (for example it has been used to treat children with squints since the 1970s) and has an excellent safety record. In the mid 1990s Botox started to be used cosmetically to soften expression lines. In 2010, after years of thorough research, Botox was finally approved by FDA to treat adults with chronic migraine. Ironically the discovery was only made when cosmetic patients noticed an improvement in their migraines as well as their wrinkles!

**Pros:**

Think of Botox as prevention rather than cure. The results are impressive: most patients experienced fewer than half the number of headache days and any migraines were less severe. However, it was not better for pain reduction compared to painkillers and has not yet shown to be effective on episodic, tension or cluster headaches. Long term, Botox may lead to a cure however by helping to identify which nerves trigger migraines. Surgical intervention to free up pressure on specific nerves can therefore by far more targeted.

**Cons:**

Botox is slowly metabolised in the body, so injections needs to be repeated every three months. (If it is administered under three months then the body can develop antibodies). Whilst inconvenient, this does mean that any side effects are temporary, and usually quite mild: headache (ironically), neck pain, eyelid drooping, muscular stiffness, itching, injection site pain, bruising and discolouration. Because Botox is a toxin, it is important that it doesn't travel to other parts of the body, so it is important to go to an experienced medical doctor rather than a cosmetic one.

**What patients can expect:**

Medical Botox involves far more injections than aesthetic Botox. The procedure takes about fifteen minutes and involves between thirty and forty injections around the head and the back of the neck, base of the skull, forehead, temples and upper shoulders. Expect to see results within two to three afterwards. There is no need for local anaesthetic, although expect a certain amount of discomfort due to the number of injections. Sufferers must be patient because they may not see results into the second course.