

The end of ageing

Orlando in Florida, home of Disneyland's Magic Kingdom, this year hosted a fantastical event, although there wasn't a Mickey Mouse in sight. The city was the location for the 19th Annual World Congress on Anti-Ageing and Aesthetic Medicine, which, if the futuristic treatments on show were to be believed, heralded a new era in anti-ageing technology. Here is a selection of the most remarkable age-reversal treatments on offer at the conference.

CELL REJUVENATION THROUGH TELOMERASE ACTIVATION

THEORY: Every human cell contains chromosomes that house our DNA, the blueprint for every feature and function in our body. At the end of each chromosome are 92 telomeres, which are responsible for maintaining the quality of our DNA. However, each time our cells divide and reproduce, the telomeres get shorter until they become so short that the cell dies.

As cells die, the organ they make up deteriorates and cannot function as efficiently, therefore speeding up ageing.

The speed of this process depends on lifestyle and genes and, according to a study carried out by the University of California, those with short telomeres are three times more at risk of dying of heart disease than those with longer telomeres.

TREATMENT: TA-65 activates an enzyme called telomerase, which helps protect the cell. TA-65 is taken as a nutritional supplement and is produced by concentrating one of the compounds found in the astragalus root, a herb used in Chinese medicine.

Last year a study carried out by Harvard Medical School on mice found that TA-65 lengthens critically short telomeres, restores the immune system and increases bone density.

COST: From £120 to £404 a month, depending on age of patient. www.tasciences.com

ALPHA-STIM SCS

THEORY: Cranial electrotherapy stimulation (CES) was pioneered in Russia during the Fifties for the treatment of anxiety, depression and insomnia - conditions known to trigger other health concerns such as heart disease that speed the ageing process.

Last year 39 million prescriptions for antidepressants were handed out and many more sufferers will not have sought help. CES works by using mild battery-powered electrical impulses that stimulate neurons (nerve cells in the brain), which produce neurotransmitters

Wendy Leigh reports from the Florida conference where doctors showcase the treatments they say will keep us young

(the chemicals, including serotonin, responsible for mood). The low-level electrical current is thought to normalise the behaviour of these cells, balancing the production of chemicals in the brain and improving a patient's mental state.

TREATMENT: The Alpha-Stim SCS (Stress Control System) is slightly larger than a mobile phone. Treatment involves attaching two electrodes to the ear, wrist or forehead. The machine is then switched on. This produces a slight tingling sensation around the electrodes.

Patients usually experience better sleep within three days and after a week many report feeling less depressed, angry or anxious. After three weeks, results have shown that concentration and the ability to digest and recall information significantly improves, too.



COST: £299. www.alpha-stim.co.uk

PROLOTHERAPY

THEORY: Prolotherapy is a form of non-surgical ligament reconstruction used to treat chronic pain, including arthritis, back pain, fibromyalgia, and sports injuries. Soft-tissue injuries not only cause immediate pain but can trigger longer-term problems such as osteoarthritis - a condition that affects nine million Britons - because the ligaments cannot support surrounding joints and muscular tissue.

Prolotherapy uses a sugar called dextrose dissolved into water that is injected into the damaged ligament or tendon. This triggers low-level inflam-

mation, which increases blood supply and stimulates the tissue to repair itself. According to The British Pain Society, about ten million Britons suffer long-term pain at any one point.

TREATMENT: Prolotherapy injections must be administered by a healthcare professional. Between three and ten over a course of weeks will be needed. After an injection the patient is advised to rest. Prolotherapy is often performed in conjunction with Platelet Rich Plasma (PRP) injections. PRP involves taking blood from a patient, processing it to harvest the platelets, which are rich in human growth factor, a chemical that helps regulate cell production in the body. The PRP is injected into the injured area to promote cell renewal.

COST: From £245 including initial consultation. www.ovingclinic.co.uk

NITRIC OXIDE SUPPLEMENTS

THEORY: Nitric oxide, a compound only discovered in 1988, is responsible for many bodily functions but its primary role in the body is as a vasodilator, helping blood vessels dilate (open) and allow blood to flow freely. After the age of 40 our ability to convert chemicals in our food - particularly from green, leafy vegetables - to nitric oxide diminishes. This leads to poor circulation which can cause a loss of sensation in the limbs, impaired brain function, slower healing, low

energy levels, and even increase the possibility of strokes and impotence. A nitric oxide dietary supplement boosts circulation, helping the body function more efficiently.



TREATMENT: If you suffer from any of these symptoms, see your GP to rule out other causes. This supplement contains enzymes that help convert amino acids in the diet into nitric oxide. For best results, use for eight weeks followed by a two-week break.

COST: USN Alpha Nitrox NO2, 90 caps, £25.99. www.thehealthbay.com

THE LASER CAP

THEORY: Hair loss as a result of ageing can affect both sexes, although men are most prone to balding. It commonly begins in the run-up to middle age and is linked to testosterone levels. The condition affects 6.5 million in the UK. Post-menopausal women can also experience thinning hair because of lower levels of oestrogen (a female hormone). Stress can cause hair to fall out, too. The Laser Cap's low-level red light stimulates hair follicles in the scalp to produce better quality and a greater quantity of hair.

TREATMENT: The cap is designed for home use but is available only on prescription. A dome-shaped membrane fits on the head and is powered by a small belt-clip battery. After a recommended three ten-minute sessions a week, the manufacturers claim results will be noticeable within two months.

COST: £2,000. www.farjo.com

THE LONGEVITY PROFILE

THEORY: Extensive blood and urine tests can foretell a developing cancer, the beginnings of heart disease, osteoporosis and hormonal imbalances and even predict organ health. By finding out the potential problems with your future health, you can make lifestyle changes to slow or stop conditions developing. About 2.6 million adults suffer heart disease in the UK and every year 94,000 die from it.

TREATMENT: Blood and urine samples are tested in 20 ways. Blood can be taken in a doctor's office in Florida or a testing kit can be sent to the UK, then returned to Florida. A phone consultation reviews the results. Whole blood spoils within 24 hours; a UK test can be done only via urine samples and a component of blood called blood serum.

COST: From £585. www.americanmetabolictlaboratories.net

Asthmatics more likely to develop tooth decay

Asthmatics are nearly three times more at risk of developing dental cavities than the rest of the population, according to new research carried out by the University of Oulu in Finland.

An estimated 5.4 million Britons have asthma, a condition causing inflammation of the airways that results in breathlessness. It affects one in 11 children.

The study analysed the oral health of more than 10,000 adults and children worldwide for evidence of a link between asthma and dental health.

It is thought that asthmatics are more prone to dental problems because they produce less saliva, which neutralises the plaque acid that erodes tooth enamel. It has also been shown that asthma

medication reduces saliva production and makes the remaining saliva more acidic too.

'The average person should visit their dentist for a check-up every 18 months but I would suggest an asthma sufferer be more vigilant,' says Damien Walmsley, Professor of Restorative Dentistry at Birmingham University. 'It could be worth going up to twice a year.'

Prof Walmsley suggests taking sensible measures - brushing teeth twice a day with a fluoride toothpaste and cutting down on sugary snacks - but not reducing asthma medication.

'So long as you maintain a rigorous dental regime and visit your dentist regularly it is possible to have healthy teeth and well-controlled asthma,' he adds.

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