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MedWire

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A recent study conducted at Emory University discovered that **55% of subjects with Parkinson's had insufficient levels of vitamin D**, compared to 36% in age-matched controls. The substantia niagra, the part of the brain inflicted in Parkinson's, has a greater number of vitamin D receptors, suggesting that vitamin D deficiency may be associated with the disease.

The European Commission determined that **10% of the population could suffer permanent hearing loss** if exposed to high volumes for longer than one hour per day, over five years. Millions of people use music players well above the safety level of about 80db in order to block out daily noises such as traffic. New safety standards are pending implementation but the trend towards high volumes continue at present.

A study in the Archives of General Psychiatry has found that **children having the most protective variant of the CRHR1 gene,** responsible for regulating response to stress hormones, are less likely to demonstrate long term consequences of physical or mental trauma.

Shocking health inequalities around the world have caused the World Health Organization (WHO) to criticize the universal issue of cost and access to proper healthcare. The World Health Report 2008 drew attention to statistics such as: 43% of women have no medical assistance during childbirth, 5.6 billion people pay out-of-pocket for more than half of their health care expenditures, and child mortality rate, particularly in Nairobi, varies by almost 25% depending on income.

A researcher from McGill University has discovered a **"gene desert"** – a stretch of DNA between two genes – that is essentially responsible for male pattern baldness. The one out of seven men who carry this trait are seven times more likely to eventually become bald.

A study published in the British Medical Journal have found that **women who smoke are eight times more likely** than non-smoking women to die from an aortic aneurysm rupturing - which is characterized by the rupturing and weakening of the heart's largest artery wall.

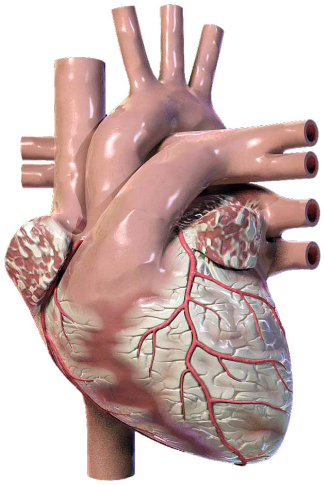
A recent study from Nature describes the novel method used by a team of American scientists in the **regeneration of prostate glands in mice**. The researchers began by isolating stem cells responsible for the development of all cells in the prostate. These cells were then transplanted back into the mice, resulting in the formation of gland replicas.

British surgeons have created one of the first **three-dimensional models of the human heart**, which is so intricate and accurate that it is able to simulate the timing of heartbeats to within 20 milliseconds.

An interesting study by the University of Illinois' medical school suggests that the song **"Stayin' Alive" might be the perfect rhythm** for performing CPR. The American Heart Association recommends 100 chest compressions per minute; giving the 103 beats per minute disco tune a whole new meaning.

A British study has found that **aspirin has no effect on heart disease**. Current guidelines advocate use by diabetics to counter the underlying risk of heart attack and stroke. While it is shown to be beneficial in reducing the risk of future heart attacks or strokes, its use as primary prevention carries significant risks such as gastrointestinal bleeding, and poses new concerns for non-diabetics.

Researchers at Lakehead University have found that **hydrogen sulfide,** the foul-smelling gas normally found in sewers, can lower blood pressure. They discovered that it is naturally produced by cells in the body, and that it allows blood vessels to relax for improved flow.



Alberta scientists have found that after experiencing heart failure, patients are at a **higher risk of fracturing bones**. This is associated with an increased risk of osteoporosis. The underlying mechanism remains unclear, but researchers are calling for more thorough and frequent screening for patients who have experienced extreme cardiac distress.

Australian scientists have discovered that **shark antibodies** may potentially be used to synthesize a new generation of cancer-fighting drugs. These compounds are exceptionally resilient since they are able to survive in the extreme conditions of the human gut. Through binding to cancerous cells, shark antibodies inhibit their growth, and there is evidence of their efficacy in slowing down breast cancer development.

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Three scientists from Hanover Medical School in Germany have developed **heart valves that grow with patients**. Mechanical valves, or those from animals, prove to be problematic for children whose hearts are still growing. To create these innovative valves, the scientists excised valves from humans or animals, removed most of the tissue, and re-engineered them with cells from the patient.

A **new class of antibiotics** is on the verge of being developed, created from compounds isolated from naturally-occurring soil organisms decades ago. Untested as of yet on humans, researchers say that cell-based experiments suggest they are potent enough to kill even stubborn bugs such as disease-resistant TB.

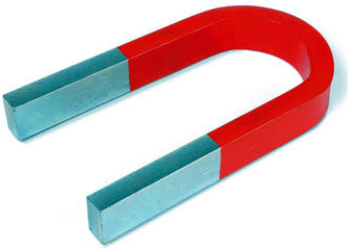
The Bridge Centre of London, England has developed a test for embryos that can **detect any of the 15,000 inherited diseases** in the short time span of a few weeks. The test screens for genetic disorders by comparing the DNA of the embryo against that of family members to determine if the embryo has inherited DNA coding for certain genetic diseases.

Canadian researchers have determined that a typical Western diet rich in **salty and fatty foods is responsible for 30% of the world's heart attacks**. The McMaster team of scientists concluded that an ideal diet consists of lots of fresh fruits and vegetables. This diet is even more effective than the tofu and soy oriental diet, and will lower heart attack risks better than any drug available.

A new study from the University of California Los Angeles has found that **web surfing can help counteract reduced brain** activity in middle and older aged individuals by stimulating brain regions responsible for reasoning and decision-making.

Baffled doctors have finally labelled a mysterious rash on people as "**mobile phone dermatitis**". This condition is caused by allergic reactions to the nickel content in the phone after excessive mobile phone usage.

Australian researchers have discovered a **genetic link to male transsexualism**. This gene is involved in testosterone action and was found to be longer in male-to-female transsexual volunteers. This study further provides evidence that there is a biological basis to transsexualism.



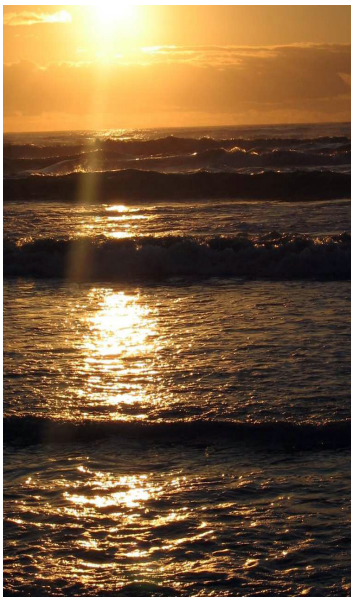
Food allergies in young children are on the rise in North America. Since last year, the prevalence of such allergies has increased 18%. Doctors are unsure about why this is occuring, but they note that while several years ago parents may have ignored symptoms like skin rashes, parents today are quick to take their children to specialists.

A recent study in the scientific journal, Pharmacotherapy, suggests that **18% of first year university students** in the United States rely on over-the-counter stimulants, such as Ritalin and Adderall, to enhance concentration during studying. Doctors fear that these students may suffer from known short term concerns, such as anxiety and insomnia, as well as unknown long term effects. The issue also presents ethical concerns for those who view the use of performance enhancing drugs as a form of cheating.

Alemtuzumab, a drug used to treat leukaemia, has been **shown to reverse brain damage** caused by multiple sclerosis (MS). Researchers at the University of Cambridge posit that the drug, a monoclonal antibody that acts against cancerous white immune cells, also disrupts the action of defective lymphocytes involved in MS.

The U.S. government has approved a **non-invasive brain stimulator** that beams magnetic pulses through the skull as a therapeutic treatment for depression. Known as transcranial magnetic stimulation, this treatment has been shown to increase standard depression measures in patients after 6 weeks of treatment.

Dr. Geoffrey Hackett, a British urologist, warns that **erectile dysfunction is often ignored as a sign of heart trouble**. Erectile dysfunction has been linked with a 50-per-cent higher risk of vascular disease. Hackett is an advocate of using erectile dysfunction as a primary indicator of heart problems, suggesting that it is a better predictor of heart disease than high blood pressure or cholesterol.



Dr. P. Nitschke, an euthanasia expert from Australia, is currently promoting his non-profit organization **Exit International in the United Kingdom**, despite many controversies regarding the ethics of assisted suicide. Many of his workshop venues withdrew after learning the nature of his conferences. Dr. Nitscke advocates for people's rights for a "definitive, peaceful end", and even goes as far as providing older people with "pieces of equipment" which are sometimes dubbed as 'Do It Yourself Suicide Kits'.