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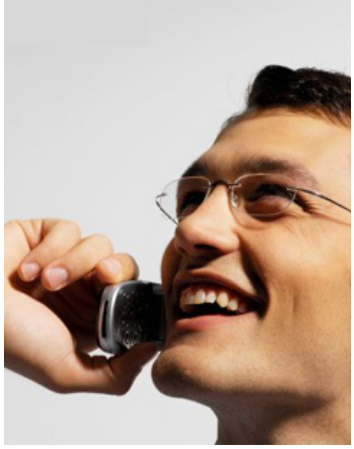
MedWire

As a drug that is **routinely prescribed for the treatment of severe pain** in cancer patients, morphine ironically may promote the spread of cancer. The opiate promotes the growth of new blood vessels which deliver oxygen and nutrients to tumors.

Danish scientists proclaim that there has been no substantial change in the number of adult brain tumors since **mobile phone usage sharply increased** in the mid-1990s.



A research team at Harvard University has successfully engineered a plastic implant, which, when placed under the skin of a rat, can kill cancer cells by inducing a systemic immune response. This **"cancer vaccine" technology** appears promising, but more research is needed before the technique can be used in humans.

A major European trial has shown that **1 in 8 men tested positive for prostate cancer** using a prostate-specific antigen will, in reality, not develop the disease.

Researchers at the University of Chicago found an increased number of proteins in the urine of 90 children **diagnosed with 'dangerous' snoring**, thereby suggesting that the urine test can differentiate dangerous snoring from safe snoring.

A study found that individuals taking angiotensin receptor blockers (ARPs) were **50% less likely to develop dementia** as compared to other blood pressure drugs. It is known that high blood pressure is a risk factor for Alzheimer's disease.

Dads should not be present in the delivery room, according to French obstetrician Michel Odent. Odent blames the increasing number of Caesarean section births on the increasing number of fathers in the delivery room. He argues that the father's presence makes the woman more anxious and slows the release of oxytocin, a hormone that stimulates uterine contractions during birth.

Jack Walborn, a six-year-old boy from the United Kingdom, became the **first person in the world to have a heart valve opened** using a magnetic resonance imaging (MRI) scan rather than X-ray. An MRI involves no radiation exposure, an important consideration for children.

A simple eye test may detect Alzheimer's and other diseases before symptoms develop, according to UK scientists. The technique uses fluorescent markers that attach to dying cells viewed from the retina, giving an early indication of brain cell death.

Drinking green tea may offer some protection against lung cancer, say experts who studied the disease at a medical university in Taiwan. Recent research involving over 500 people adds to growing evidence point to the beverage's anti-cancer effects.

Not only does the amount and style of exercise matter, but studies also show that differences in **what you eat after exercise** produce different effects on the body's metabolism.

Patients may have to be prescribed **higher doses of antibiotics because of rising rates of obesity**. Doctors argue that the standard "one-size fits all" dose may not eliminate an infection in larger adults, which can increase the risk of developing antibiotic resistance.

The Potato Council is trying to reclassify the tuber as a "supercarb" – recognizing its "unique dual identity" as both carbohydrate and vegetable. Spurned by dieters on low-carbohydrate regimens like Atkins, the vegetable also appeared to score poorly on the Glycaemic Index (GI) - which measures how quickly foods are broken down. The slower, the healthier - and the potato breakdown was quick.

UK experts claim that **carrying extra weight on your hips, bum and thighs protects against heart and metabolic problems**. Hip fat mops up harmful fatty acids and contains an anti-inflammatory agent that helps prevent arteries from clogging.

Neuroscientist Hiroshi Kawabe has recently published a study in the prestigious journal, *Neuron*, showing that an enzyme, which usually **controls the destruction of protein components**, has an unexpected function in neurons. Nedd4-1 controls cytoskeleton structure and thus ensures that nerve cells can form the tree-like extensions necessary for signal transmission in the brain.

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Attractive women may have the competitive edge by letting their temper flare more, research suggests. Researchers found **women who rated themselves as pretty displayed a war-like streak** when fighting battles to get their own way.

Joel Nigg, a scientist at the Oregon Health & Science University postulated that lead, which is sometimes found in paint, may **trigger an underlying susceptibility to ADHD** and change it into a full-blown disorder.

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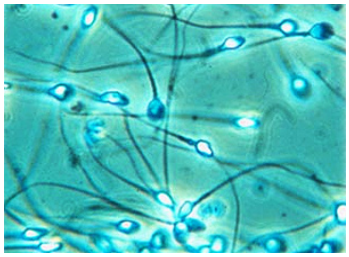
Swapping a daily glass of wine for another with a slightly lower alcohol content may lower the risk of some cancers. **An alcohol content of 10% rather than 14%** may be enough to initiate such benefits, says the World Cancer Research Fund.

Brain blood vessels point to Multiple Sclerosis (MS): A US study states more than 55% of MS patients have constricted blood vessels in their brains.

Stammering has long been recognized to run in families, but scientists now say they have identified three genes that may cause the problem to occur. They believe that mutations tied to metabolic disorders may also affect the way some parts of the brain function.

Professor Ina Weiner of Tel Aviv University recently found that the lateral ventricles and hippocampus were larger in rats that were manipulated prenatally to display **schizophrenia-like symptoms**. Two drugs commonly used to treat schizophrenia, risperidone and clozapine, appeared successful in reducing ventricles and hippocampus size to normal.

A mechanism, which incites sperm swimming when they get near the egg, could one day lead to **new forms of male contraception**, scientists have said. Tiny pores on the sperm's surface allow it to change its internal pH, which in turn starts its tail movements.



Scientists in Cambridge have shown that an **"artificial pancreas"** can be used to regulate blood sugar in children with Type 1 diabetes. A trial found that combining a "real time" sensor measuring glucose levels with a pump that delivers insulin can improve overnight blood sugar control.

Vegetative patients can respond to questions: Scientists have been able to communicate with the thoughts of a brain-damaged man. Awareness was detected in three other patients previously diagnosed as being in a vegetative state.

A recent study published Clinical Pediatrics suggested that behaviours relating to **how much and what to eat are developed as early as three months to about two years of age**. This makes this age period a tipping point in determining the future onset of obesity.

A recent study mapped the **effect of acupuncture on brain activity** and may allow acupuncture to be more accepted in the scientific community. Researchers found that the sensation produced by acupuncture, termed deqi, deactivates areas within the brain associated with the processing of pain.

Researchers at MIT and Harvard University have developed **nanoparticles with the capability to cling to the walls of arteries** and release medicine. These so-called "nanoburrs" have the added ability to be targeted to specific locations and as a result, introduces an alternative to drug-releasing stents in patients with cardiovascular disease.

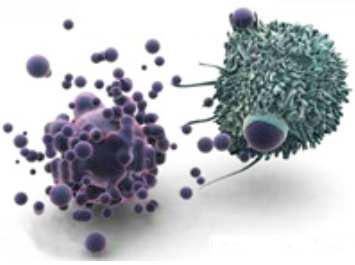
If you find playing video games a struggle, it could be to do with the size of certain parts of your brain. US researchers found they could predict how well an amateur player might perform on a game by measuring the volume of key sections of the brain.

While most children like sweets, those with an extra-sweet tooth may be at **higher risk of future depression or alcohol problems**. A report in *Addiction* indicated that children are especially drawn to very sweet tastes had a close relative with an alcohol problem or showed symptoms of depression.

Scientists are trying **to mimic the look, feel, and taste of chicken with soy**. Why? It costs less and has many health benefits, including lowering cholesterol levels and maintaining healthy bone structure.

The **3D structure of the vesicular stomatis virus (VSV)** was recently revealed in a paper published in Science. The bullet-shaped VSV has therapeutic potential in treating cancer and HIV.

A **small proportion of extremely overweight people** may be missing the same segment of genetic material, claim researchers. The findings, published in *Nature*, could offer clues to whether obesity can be "inherited".



Scientists at the University of Chicago's Brain Tumor Center have developed **nanomaterials that may help fight cancer**. By connecting gold-plated iron-nickel microdiscs to brain-cancer-seeking antibodies, the application of a light magnetic field triggers an oscillation whereby energy transfer induces cell suicide known as apoptosis.