



September 2009 Issue #16

## acupuncture

NOW USED TO TREAT HEARTBURN IN PREGNANCY

## fish v fast food

NEW DISCOVERIES SHOW BENEFITS OF EATING OILY FISH

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### treating heartburn in pregnancy with acupuncture

**HEARTBURN IS ONE OF THE MOST COMMON COMPLAINTS IN PREGNANCY, AFFECTING UP TO 4 IN 5 OF PREGNANT WOMEN.**

Although these symptoms are due mainly to hormonal changes, other factors such as the increasing size of uterus also play a role. Currently, treatment consists of medications such as antacids and lifestyle modifications, but for many women, symptoms may still persist and often recur in future pregnancies.

Acupuncture has already been shown to improve nausea and dry retching symptoms in early pregnancy, but a recent study has shown that it may also help to alleviate heartburn and dyspepsia. The randomised, controlled study in Sao Paulo, Brazil followed 36 women at 15-30 weeks of pregnancy with heartburn symptoms, with 20 women receiving acupuncture and standard treatment such as antacids, and 16 patients receiving standard treatment alone. During the 8 weeks of the study, the acupuncture group reported an improvement of their symptoms by at least 50% compared to the control group (31%), with less pain after eating and improved sleep quality. Moreover, the study group needed to take less

antacid medication than the control group. Importantly, the acupuncture group reported no significant side effects, and no differences were found in either group with respect to their infants.

Although further research is needed, these preliminary results suggest that acupuncture may reduce the need for medication and improve the quality of life for pregnant women with dyspepsia.

Roy PK; *Gastrointestinal Disease and Pregnancy. eMedicine, July 2006.*

Smith C, Crowther C, Beilby J. Acupuncture to treat nausea and vomiting in early pregnancy: a randomized controlled trial. *Birth 2002;29:1-9.*[Medline]

Acupuncture for dyspepsia in pregnancy: a prospective, randomised, controlled study  
Guerreiro da Silva J, Nakamura M, et al. *Acupunct Med 2009; 27: 50-53.*



### gene breakthrough in type 2 diabetes

**IN TYPE 2 DIABETES, THE BODY CONTINUES TO PRODUCE INSULIN BUT CELLS IN THE BODY BECOME RESISTANT TO IT. THE CAUSES OF TYPE 2 DIABETES ARE NORMALLY LINKED TO OBESITY, LACK OF EXERCISE AND POOR DIET. NEWLY-FOUND GENES SEEM TO AFFECT THE ABILITY OF MUSCLES TO USE INSULIN TO MAKE ENERGY.**

The findings, reported in *Nature Genetics*, come from a study of some 14,000 people and led to the discovery of a gene called IRS1. This is the first genetic evidence that a defect in the way insulin works in muscles can contribute to diabetes. Most of the genes previously identified reduce the function of the pancreas (beta cells) to make insulin. Rather than reduce production of insulin, IRS1 reduces the effect of insulin in muscles, liver and fat, a process called insulin resistance.

The researchers suggested that it may be possible to develop a treatment that improves the way insulin works in the muscle, and this would be a completely new approach.

"A multistage genome-wide association study detects a new risk locus near IRS1 for type 2 diabetes, insulin resistance and hyperinsulinemia", *Nature Genetics*, 6 September 2009.

# why fish is good and fast food is still bad

## BRITISH SCIENTISTS HAVE A FRESH EXPLANATION FOR WHY EATING FISH OIL MAY HELP PREVENT HEART DISEASE.

Eating oily fish has been linked to improved heart health for some time. It was thought that fish oil simply substituted healthy fats for unhealthy ones.

But the latest research suggests a more complex explanation - linked to the ability of fish oils to control the immune system. The researchers from Birmingham University, UK, say that omega-3 oils found in fish can prevent white blood cells from crossing the walls of blood vessels. This may help prevent immune system reactions which cause inflammation of the walls and blockages to the circulation. The finding, reported in PLoS Biology, was welcomed by the British Heart Foundation, which helped fund the research.

Professor Jeremy Pearson, of the BHF, said the findings were "unexpected". He said: "We believe that untangling the processes by which normally-protective white blood cells can cause inflammatory damage in our arteries will lead to new ways to protect the heart and circulation.

"This research sheds light on how fatty acids found in fish oils can have beneficial effects on heart and circulation health. Unexpectedly, they appear to be able to block the migration of white blood cells across the walls of small blood vessels - a crucial step in causing inflammation."

Meanwhile researchers in Hong Kong, China, are highlighting the dangers of a form of cholesterol called oxysterol. It

is an oxidised cholesterol present in some fried and processed food, particularly fast food. When cholesterol is oxidised, under some food processing conditions, it creates "cholesterol oxidation products". So far, more than 30 cholesterol oxidation products have been identified. They have been linked with cell toxicity, genetic mutation, and increased risk of cancer.

Experts led by Dr Zhen-Yu Chen of Chinese University of Hong Kong, believe the effect of dietary cholesterol oxidation products on blood cholesterol is "unfortunately ignored and there is very limited information about its effect on atherosclerosis risk".

The team carried out a study to investigate these effects using hamsters. They found that oxidised cholesterol raised total cholesterol in the blood serum by 22 per cent, compared with 12 per cent for non-oxidised cholesterol. Results were presented at the National Meeting of the American Chemical Society, held in Washington, DC, USA.

Dr Chen said: "Total cholesterol, low-density lipoprotein cholesterol, and the heart-healthy high-density lipoprotein cholesterol are still important health issues, but the public should recognise that oxysterol is also important and cannot be ignored."

Plos Biology 25 August 2009

Paper AGFD 237, presented on Thursday, August 20, during the General Papers symposium.

## Aspirin, coffee and exercise - which benefits the heart?

### THE ROLE OF ASPIRIN, COFFEE AND EXERCISE IN HEART DISEASE WERE ALL UNDER DISCUSSION AT A CONFERENCE OF EUROPEAN EXPERTS.

A major study by Scottish researchers concludes that aspirin should not be taken to prevent heart disease in healthy people. The pill has been widely used as a standard treatment for people with heart disease. But the Scottish study, involving nearly 29,000 volunteers thought to be at risk from heart disease, found it made no difference to people in preventing heart attack, death or stroke. The findings were reported to the conference of the European Society of Cardiology in Barcelona, Spain. Participants were identified through a screening programme known as the low ankle brachial index or ABI - which measures blood pressure at the ankle.

Researcher Professor Gerry Fowkes from the Wolfson Unit for Prevention of Peripheral Vascular Diseases in Edinburgh said: "It is possible that in the general population, aspirin could produce a smaller reduction in vascular events than this trial was designed to detect. But it is questionable whether such an effect, together with aspirin related morbidity, would justify the additional resources and health care requirements of an ABI screening programme."

A second study from Italy warned of the dangers of coffee in upsetting the rhythm of the heart. Researchers from the University of Modena, Italy, linked coffee drinking to atrial

fibrillation, a common kind of irregular rhythm. They also found that eating the so-called Mediterranean diet seemed to help prevent it.

Researcher Professor Anna Vittoria Mattioli said: "Our study suggests that high intake of coffee increase the risk of arrhythmias in people without known cardiac disease."

A third study from Germany suggests that a programme of exercise may often be more effective than medical intervention in dealing with heart disease. German researchers say they have conducted trials showing that 12 months of exercise therapy is more effective at saving the life of people with stable heart disease than percutaneous coronary intervention, the angioplasty procedure which clears blocked arteries.

Researcher Professor Rainer Hambrecht, of Klinikum Links der Weser in Bremen, Germany, said: "Before time runs out, we must make physical activity and health education a number one priority of our public health system.

"Interventions need to start as early as in childhood, when unhealthy eating habits are coined and sedentary lifestyle is copied from adults."

**CITY OF LONDON**  
164 Bishopsgate,  
London, EC2M 4LZ  
T: 020 7377 4646

**CANARY WHARF**  
25 Cabot Square,  
London, E14 4QW  
T: 020 7715 7450

**TOWER BRIDGE**  
2B More London Riverside,  
London, SE1 2AP  
T: 020 7940 1390

**GLASGOW**  
163 West George Street,  
Glasgow, G2 2JJ  
T: 01412 229 950