



The Vitamin & Herb Stores

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Public release date: 14-Apr-2008

High blood pressure may protect against migraine

ST. PAUL, Minn. – People with high blood pressure appear to be less likely to have migraine than those with low blood pressure. Researchers say stiff arteries associated with high blood pressure may play a role in protecting against migraine. The research is published in the April 15, 2008, issue of *Neurology*®, the medical journal of the American Academy of Neurology.

Researchers tested the blood pressure of 51,353 men and women over the age 20 in Norway, including the systolic, diastolic and pulse pressure rates. Pulse pressure is the change in blood pressure when the heart contracts. The rate is determined by subtracting the diastolic blood pressure, the bottom number, from the systolic blood pressure, or the top number.

The participants also completed a survey on the presence and frequency of headaches and their use of blood pressure medications.

The study found people with higher systolic blood pressure were up to 40 percent less likely to have a headache or migraine compared to people with healthier blood pressure rates.

“Higher pulse pressure was linked to up to a 50-percent reduction in the amount of headache and migraine for both men and women,” said study author Erling Tronvik, MD, with the Norwegian National Headache Center at Trondheim University Hospital in Trondheim, Norway. “The finding was not as strong, however, for people who were taking blood pressure medications, which are sometimes used to treat migraine.”

Tronvik says both high systolic blood pressure and pulse pressure are related to stiff arteries and that may decrease the risk of headaches by affecting the baroreflex arch. “The baroreflex arch helps maintain blood pressure, but when it is affected, it can cause hypoalgesia, a condition that makes a person less sensitive to pain,” said Tronvik.

Tronvik says these results confirm previous studies which have found that increasing blood pressure is linked to decreasing amounts of chronic pain in all parts of the body.

Public release date: 14-Apr-2008

Excess pneumonia deaths linked to engine exhaust

Atmospheric pollutants and mortalities in English local authority areas
Engine exhaust fumes are linked to excess deaths from pneumonia across England, suggests research published in the *Journal of Epidemiology and Community Health*.

The annual death toll is comparable to that caused by the London smog in 1952, suggests the author.

Data on atmospheric emissions, published causes of death, and expected causes of death for 352 local authority jurisdictions in England were combined to calculate the impact of pollution on death rates

between 1996 and 2004.

Levels of air pollution varied substantially among the local authorities.

Calculations revealed that pneumonia, peptic ulcer, coronary and rheumatic heart diseases, lung and stomach cancers, and other diseases, were all associated with a range of emissions, as well as deprivation, smoking, binge drinking and a northern location.

Further analysis, allowing for the effects of the social factors, showed that pneumonia deaths were strongly and independently linked to emissions, with the exception of sulphur dioxide from coal burning.

The primary culprits were emissions associated with oil combustion, including vehicle exhaust fumes.

During the eight years of the study there were almost 390,000 deaths from pneumonia.

And 35 local authorities accounted for almost 54,000 of these deaths, or around 15,000 more than would be expected.

“Total annual losses as a result of air pollution probably approach those of the 1952 London smog,” writes the author.

Because the links were so strong across all categories of exposure and deaths were so much higher than would be expected, this suggests that these pollutants directly damage lung tissue, he says.

Excess deaths from the progressive lung disease COPD (Chronic Obstructive Pulmonary Disease) and rheumatic heart disease, both of which are characterised by failing lung function, could also be precipitated by engine exhaust, he adds.

Public release date: 15-Apr-2008

Vitamin E may help Alzheimer's patients live longer

CHICAGO – People with Alzheimer's disease who take vitamin E appear to live longer than those who don't take vitamin E, according to research that will be presented at the American Academy of Neurology 60th Anniversary Annual Meeting in Chicago, April 12–19, 2008.

For the study, researchers followed 847 people with Alzheimer's disease for an average of five years. About two-thirds of the group took 1,000 international units of vitamin E twice a day along with an Alzheimer's drug (a cholinesterase inhibitor). Less than 10 percent of the group took vitamin E alone and approximately 15 percent did not take vitamin E.

The study found people who took vitamin E, with or without a cholinesterase inhibitor, were 26 percent less likely to die than people who didn't take vitamin E.

"Vitamin E has previously been shown to delay the progression of moderately severe Alzheimer's disease. Now, we've been able to show that vitamin E appears to increase the survival time of Alzheimer's patients as well," said study author Valory Pavlik, PhD, with Baylor College of Medicine's Alzheimer's Disease and Memory Disorders Center in Houston, TX, and member of the American Academy of Neurology. "This is particularly important because recent studies in heart disease patients have questioned whether vitamin E is beneficial for survival."

In addition, the study found vitamin E plus a cholinesterase inhibitor may be more beneficial than taking either agent alone. "Our findings show that people who took a cholinesterase inhibitor

without vitamin E did not have a survival benefit,” said Pavlik. “More research needs to be done to determine why this may be the case.”

In addition to vitamin E supplements, some vegetable oils, nuts, and green leafy vegetables are main food sources of vitamin E. Some fortified cereals in the United States also contain vitamin E. “The daily amount of vitamin E taken by patients in this study was much higher than what is currently recommended for the general population,” said Pavlik.

Public release date: 15-Apr-2008

Chinese club moss extract (Huperzine A) may improve cognition in Alzheimer's disease

Existing evidence suggests that patients with Alzheimer’s disease who have taken Huperzine A have improved general cognitive function, global clinical status, functional performance and reduced behavioural disturbance compared to patients taking placebos.

The research team came to this conclusion after studying data in six trials that involve a total of 454 patients.

Part of the damage involved in Alzheimer’s disease is a loss of acetylcholine-containing neurons in the basal forebrain. This suggests that drugs that could inhibit cholinesterase, which breaks down acetylcholine, could increase the ability of remaining cholinergic neurons.

Scientists know that Huperzine A can block acetyl cholinesterase and that it can work both in the peripheral and central nervous systems. This makes it a promising agent for treating various forms of dementia including Alzheimer’s disease.

“These findings are based on small number of trials, but the data indicate that it would be well worth setting up some more high quality assessments of this interesting drug,” says Associate Professor Hongmei Wu, who led this research and works in the Department of Geriatrics at the West China Hospital of Sichuan University in Chengdu, Sichuan, China.

Public release date: 15-Apr-2008

Think twice before using antibiotics for acute maxillary sinusitis

A Cochrane Systematic Review of medical research found that four out of five patients who are seen in primary care with simple sinusitis improved within two weeks even if they had not been given antibiotics. When antibiotics were given they speeded up recovery from symptoms, but only marginally.

Having sinusitis is one of the most common reasons for visiting a doctor, with 20 million visits for this condition every year in the USA alone. It accounts for between 15 and 21 of every 100 outpatient prescriptions for antibiotics for adults. Most sinusitis accompanies viral cold infections and so can not be affected by antibiotics, but the few cases that have additional bacterial infections could benefit.

The problem is that it is not easy to distinguish people with, and without, a bacterial infection. And, amidst the growing concern that the use of antibiotics should be reduced so as to limit the increase in antibiotic resistance in bacteria, it is important to try to avoid the unnecessary use of these drugs. It is now recognised that countries with high antibiotic use have high levels of antibiotic resistance.

This systematic review drew together data from 57 separate studies that used a variety of antibiotics and designs. Six of the studies allocated a total of 747 patients to antibiotics or placebo and found

that most of the patients got better within two weeks, regardless of which group they were in. The other 51 studies, with more than 15,000 patients compared different antibiotics against each, and did not identify any drug that was clearly superior to any other.

“Clinicians need to weigh the small benefits of antibiotic treatment against the potential for adverse effects for both individuals and the general population,” says lead author Dr Anneli Ahovuo-Saloranta who works at the Finnish Office for Health Technology Assessment in Tampere, Finland.

Public Release: 15-Apr-2008

MSU study finds media coverage of breast cancer focuses too little on prevention

EAST LANSING, Mich. — News coverage of breast cancer focuses too much on treatments and not enough on prevention, a trend that could prove risky in the long run for many women, say researchers at Michigan State University.

An MSU analysis of national media’s coverage of the disease found that over a two-year period, 31 percent of the 231 stories that appeared in some of the country’s top newspapers, magazines and television networks focused on treatment, **while only 18 percent looked at prevention.**

The research paper, titled “A Comprehensive Analysis of Breast Cancer News Coverage in Leading Media Outlets Focusing on Environmental Risks and Prevention,” is published in the latest edition of the Journal of Health Communication.

“What we’re concerned about is people will think, ‘well, the scientists are going to come up with a cure, so we don’t need to worry about prevention,’” said Charles Atkin, one of the authors of the study and a University Distinguished Professor of communication at MSU. “I think this emphasis on treatment, especially so-called breakthroughs, may lead to complacency.”

In 2003 and 2004, Atkin and colleagues analyzed breast-cancer coverage in the New York Times, Los Angeles Times, USA Today, Time, Newsweek, U.S. News and World Report, NBC Nightly News, ABC World News Tonight and the CBS Evening News.

The researchers found that by a two-to-one margin, the news stories focused more on narratives – personal stories of cancer patients – rather than on data and statistics. And, said Atkin, while this can provide more compelling stories for readers and viewers, **it doesn’t do much to help further the cause of cancer prevention.**

“The biggest single type of story was about breast cancer treatment, and narratives lend themselves much better to that kind of story,” he said. **“Stories about prevention, about people exercising and eating right, just don’t make great copy.”**

While many of the factors that can lead to breast cancer are beyond one's control – such as family history and age – there are many steps people can take to reduce their risk of breast, or any other type of cancer, including diet, exercise and avoidance of certain substances in the environment that are known to contribute to breast cancer.

Environmental risks are broadly defined as contaminants in the air, ground or items we come in contact with; pharmaceuticals; and lifestyle practices.

The research also found that of the stories that focused on environmental risk factors for breast cancer, about 12 percent discussed the use of hormone replacement therapy. Recent research finds there may be a link between HRT and breast cancer.

Other risk factors covered in these stories included the use of certain pharmaceuticals, obesity, exposure to chemical contaminants and pesticides, diet, tobacco use and exposure to second-hand smoke.

“The media,” Atkin said, “really underrepresent the risks involving lifestyle and the prevention activities people can make.”

Also lacking were stories about the role parents can play in helping their children prevent breast cancer.

“Advice to parents on how they should be raising their daughters in terms of diet and exercise was completely ignored,” said Sandi Smith, study co-author who is with MSU's Health and Risk Communication Center. “There were no stories at all.”

Atkin said media awareness of promoting cancer-prevention techniques is crucial.

“The media in general have a large influence on what women believe is risky and what they learn about how to prevent breast cancer,” he said. “Some ongoing studies are finding that the media, along with friends and family members, are more influential than even physicians.”

The research was funded by the National Cancer Institute and the National Institute of Environmental Health Sciences.

Public release date: 16-Apr-2008

Chemical exposure may increase risk of ALS

CHICAGO – Preliminary results show that a common environmental chemical may increase the risk of developing amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, according to research that will be presented at the American Academy of Neurology 60th Anniversary Annual Meeting in Chicago, April 12–19, 2008.

The study was based on the Cancer Prevention Study II of the American Cancer Society. Over one million people were asked to report their exposure to 12 types of chemicals. The participants were followed for 15 years, and the number of people who died during that time of ALS was tracked. A

total of 617 men and 539 women died from ALS during the study.

Researchers found no significant link between ALS and exposure to most chemicals, including pesticides and herbicides. **People who reported that they had regular exposure to formaldehyde, however, were 34 percent more likely to develop ALS than those with no exposure to formaldehyde.**

“Although this finding could well be a chance observation, it merits further investigation, particularly because people with longer exposure to formaldehyde had a greater risk of developing ALS than those with shorter exposures,” said study author Marc Weisskopf, PhD, of Harvard University in Boston. “People who reported 10 or more years of exposure were almost four times as likely to develop ALS as those with no exposure.”

Weisskopf said the results are preliminary and more research needs to be done to test the results. “This finding was somewhat surprising, because formaldehyde has not been raised as an issue in ALS before,” he said.

Formaldehyde is used in particle board and other wood products, permanent press fabrics, glues, and other household products, such as cosmetics and shampoo. It is also used as a preservative in medical laboratories and mortuaries, and as an industrial disinfectant.

Weisskopf noted that the participants were asked about their exposure to formaldehyde and other chemicals in 1982. In 1987, formaldehyde was classified as a probable human carcinogen at high exposure levels by the U.S. Environmental Protection Agency in 1987.

“Exposure since then has generally decreased, but it certainly isn’t gone,” he said.

Ralph’s Note - Hmmm, what is the by product of aspartame in the human body?

Public release date: 16-Apr-2008

Low vitamin D levels associated with an increased risk of peripheral arterial disease

Low levels of vitamin D may be associated with an increased risk for peripheral arterial disease (PAD), researchers reported at the American Heart Association’s Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference 2008.

Results of the study will also be simultaneously published in Arteriosclerosis, Thrombosis, and Vascular Biology: Journal of the American Heart Association.

PAD occurs when arteries in the legs become narrowed or clogged with fatty deposits, reducing blood flow to the legs. PAD affects about 8 million Americans and is associated with significant disease and death, according to the American Heart Association’s Heart Disease and Stroke Statistics – 2008 Update.

Vitamin D, or 25-hydroxyl vitamin D, is converted by the body to a hormone that makes bones stronger. Severe vitamin D deficiency can cause diseases such as rickets in children. Scientists are only beginning to explore the relationship between 25-hydroxyl vitamin D and cardiovascular disease.

“In animals, vitamin D has anti-inflammatory activity,” said Michal Melamed, M.D.,

M.H.S., lead author of the study and assistant professor of Medicine and Epidemiology and Population Health at Albert Einstein College of Medicine in New York City.

“In addition, in mice, vitamin D is a regulator of one of the hormone systems that affects blood pressure. The cells in the blood vessels in the body have receptors for vitamin D, so vitamin D may have direct effects on the vessels, although this has not been fully worked out.”

To study whether there is a relationship of vitamin D with PAD, Melamed and colleagues analyzed data from a national survey measuring vitamin D levels in 4,839 U.S. adults. Researchers in that survey had also documented ankle-brachial index, a PAD screening tool that measures blood flow to the legs.

“We also measured other risk factors for peripheral arterial disease such as cholesterol levels, diabetes, blood pressure and inflammatory markers such as C-reactive protein,” Melamed said.

The researchers found that higher levels of vitamin D correlated with a lower prevalence of PAD. In the participants with the highest vitamin D levels — more than 29.2 nanogram per milliliter (ng/mL) — only 3.7 percent had PAD. Among those with the lowest levels — less than 17.8 ng/mL — 8.1 percent had PAD.

“After adjusting for age, sex, race and co-existing health problems, we found adults in the lowest vitamin D group had a 64 percent higher prevalence of PAD compared to those with the highest vitamin D levels,” Melamed said. “For each 10 ng/mL lower vitamin D level, there was a 29 percent higher risk of peripheral arterial disease.”

This does not mean that vitamin D is having a protective effect itself, although this is one hypothesis. It is also possible that higher vitamin D levels may be a marker of other health practices, e.g., eating a healthier diet or engaging in more physical activity – which could be related to sun exposure, though not necessarily, researchers said.

The findings need to be addressed in a large randomized clinical trial of vitamin D supplementation, Melamed said. This could be done with natural sources from food.

“Other vitamins have been thought to help prevent cardiovascular disease, such as vitamin E, which did not pan out after being tested in a randomized clinical trial,” Melamed said. “Therefore, we would not recommend people start taking vitamin D supplements without talking to their doctors. However, we recommend eating a balanced diet. People obtain vitamin D either through exposure to the sun or from foods, especially fish and fortified milk and other fortified foods.”

Ralph’s Note - Why would a Researcher spend more time talking people out of taking vitamin D, then actually on the research itself.

Same Research Different Publication (Proper Write Up)

Public release date: 16-Apr-2008

Einstein researchers find that vitamin D may protect against peripheral artery disease

BRONX, NY) – People with low vitamin D levels may face an increased risk for peripheral artery disease (PAD), according to researchers at the Albert Einstein College of Medicine of Yeshiva University. The scientists reported their findings at the American Heart Association’s Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference 2008.

PAD is a common disease that occurs when arteries in the legs become narrowed by fatty deposits, causing pain and numbness and impairing the ability to walk. PAD affects about eight million Americans and is associated with significant disease and death, according to the American Heart Association.

People obtain vitamin D by making it themselves (through skin exposure to sunlight), by ingesting foods such as fish and fortified dairy products that contain vitamin D, or by taking dietary supplements. Adequate vitamin D levels are necessary for bone health, but scientists are only beginning to explore vitamin D’s connection to cardiovascular disease.

“We know that in mice, vitamin D regulates one of the hormone systems that affects blood pressure,” said Dr. Michal Melamed, lead author of the study and assistant professor in the departments of Medicine and Epidemiology & Population Health at Einstein. “Since cells in the blood vessels have receptors for vitamin D, it may directly affect the vessels, although this has not been fully worked out.”

To see whether vitamin D might influence PAD, Dr. Melamed and colleagues analyzed data from a national survey measuring vitamin D levels in the blood of 4,839 U.S. adults. The survey tested these people using the ankle-brachial index, a screening tool for PAD that measures blood flow to the legs. Also measured were other risk factors for PAD such as cholesterol levels, blood pressure and presence of diabetes.

The researchers found that higher levels of vitamin D were associated with a lower prevalence of PAD. Among individuals with the highest vitamin D levels —more than 29.2 nanogram per milliliter (ng/mL) — only 3.7 percent had PAD. Among those with the lowest vitamin D levels — less than 17.8 ng/mL — 8.1 percent had PAD.

When the researchers adjusted for age, sex, race and co-existing health problems, they found that PAD was 64 percent more common in the group with the lowest vitamin D levels compared with the group with the highest levels. For each 10 ng/mL drop in vitamin D level, the risk for PAD increased by 29 percent.

While these findings suggest a role for vitamin D in preventing PAD, Dr. Melamed

cautions that they don't necessarily show that vitamin D truly deserves the credit. It's possible, she says, that vitamin D levels are a marker for other health practices such as eating a healthy diet. She notes that proving a cause-and-effect relationship between vitamin D and protection against PAD will require a large randomized clinical trial in which some people receive vitamin D supplementation while others do not.

Public release date: 16-Apr-2008

Study shows pine bark naturally reduces osteoarthritis

Pycnogenol lowered joint pain by 55% from baseline 'severe' to moderately painful, improved physical function by 56%, joint stiffness by 53% and increased patient's mobility almost 3-fold

More than 20 million Americans suffer from osteoarthritis, with half a million Americans having a total joint replacement each year. A new study to be published in the April 2008 edition (Volume 22, issue No 4) of the journal of Phytotherapy Research shows Pycnogenol (pic-noj-en-all), an antioxidant plant extract from the bark of the French maritime pine tree, was shown to reduce all osteoarthritis symptoms by 56 percent. The study revealed a particularly high efficacy of Pycnogenol for lowering joint pain by 55 percent. Moreover, patients required dramatically less standard pain medication (-58 percent), which greatly improved the gastrointestinal complications resulting from the pain medication by 63 percent.

“Pycnogenol seemed a natural fit for this study,” said Dr. Gianni Belcaro, a lead researcher of the study. “There are a few main components contributing to the clinical picture of treatment management in osteoarthritis: inflammation causing a progression in the disease, alteration of fatigue resistance and muscular performance—reversing and blocking the vascular problems associated to altered mobility. Theoretically, a treatment with a compound specifically active on all those aspects could be highly effective, which is why we chose Pycnogenol.”

The randomized, double-blind, placebo-controlled study, held at Italy's Chieti-Pescara University, sampled 156 patients with osteoarthritis of the knee (OA). Patients were administered 100 mg Pycnogenol or placebo, daily for three months. Symptoms were evaluated by WOMAC index scores and mobility by recording their walking performance on a treadmill. Patients were permitted to continue taking their choice of pain medication provided they recorded every tablet in a diary for later evaluation.

To describe and rate osteoarthritis symptoms (joint pain, stiffness and physical function), WOMAC questionnaires were evaluated by the investigator and patient at the start and after three months of treatment. Patients were trained on a treadmill test and performance evaluation was recorded on total distance that could be covered without pain. Measuring foot volume by the water-displacement method was used to evaluate ankle/foot edema in a randomly selected subgroup of subjects within the two treatment groups.

After three months, scores for pain dropped significantly for the Pycnogenol treatment group and no significant effects were recorded for the placebo group. Scores for stiffness were reduced by 53 percent. The scores for physical function were reduced by 57 percent in the Pycnogenol group and improvement under placebo was not significant. The global WOMAC score decreased following Pycnogenol treatment and very little in the placebo group, from 56 percent vs. 9.6 percent for Pycnogenol and placebo, respectively. Overall well-being of patients (emotional function) was significantly enhanced with the Pycnogenol group, by 64 percent and 15 percent for the placebo group.

Results of exercise tests on the treadmill demonstrated an increased performance after three months of Pycnogenol treatment. At the start of the study, patients could only walk a mean of 74 yards without feeling pain and after three months, they could walk 216 yards, compared to the placebo group that noted 71 yards at the beginning of the study and 96 yards at the end.

In addition to the osteoarthritis results, 76 percent of the patients in the Pycnogenol group and 79 percent in the placebo group showed visible ankle and foot edema at inclusion of the study. After the three months, edema decreased in 79 percent of the Pycnogenol patients and only one percent in placebo-treated patients.

Patients were allowed to use their regular dosage of NSAIDS. Usage dropped by 58 percent during treatment with Pycnogenol and one percent with the placebo. Evaluation of data demonstrated a decrease of gastrointestinal complications of 64 percent in the Pycnogenol group versus three percent in placebo.

“The results of this study are significant as they clearly demonstrate the clinical action of Pycnogenol on OA and management of symptoms. The use of Pycnogenol may reduce costs and side effects of anti-inflammatory agents and offer a natural alternative solution to people suffering from OA” said Dr. Belcaro.

A previous study on osteoarthritis which was carried out at the University of Arizona Tucson (published in Nutrition Research) had discovered that Pycnogenol was effective for improving pain and joint function. After three months in the Pycnogenol group, there was a reduction of 43 percent in pain, 35 percent in stiffness, 52 percent in physical function subscales, respectively. The placebo group showed no significant scores throughout the entire study. Dr. Belcaro confirms this earlier study with a much larger number of patients and with a more detailed investigation procedure.

The benefits of Pycnogenol for arthritic joints are suggested to result predominantly from the anti-inflammatory potency of Pycnogenol which was demonstrated in a series of clinical investigations in the past. There are more breakthrough studies on Pycnogenol and osteoarthritis expected to be published next year allowing for development of innovative, natural formulas for joint health. Additionally, Horphag Research, the exclusive worldwide distributor of Pycnogenol has filed for several patents for Pycnogenol’s application for COX-1, COX-2 and treating osteoarthritis.

“The new research in the field of osteoarthritis has been a paradigm shift for Pycnogenol. We were able to demonstrate Pycnogenol’s impact on all inflammatory parameters and have succeeded in providing strong clinical evidence of Pycnogenol efficacy in this field. It is obvious that Pycnogenol will have to be considered as an innovative ingredient of choice for the joint health market,” said Victor Ferrari, CEO of Horphag Research, the exclusive worldwide supplier of Pycnogenol.

Public release date: 21-Apr-2008

Study reveals inaccuracies in studies of cancer treatment

Certain biases may exist in observational studies that compare outcomes of different cancer therapies, making the results questionable. That is the conclusion of a new study published in the June 1, 2008 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society. The research suggests that observational studies should include more thorough information and should be better designed to minimize inaccuracies.

Clinical trials are considered the gold standard for demonstrating the effectiveness of new treatments for cancer, but observational studies, which do not involve randomization but where available data are nonetheless analyzed to make treatment comparisons, have also been used to provide information on how well patients respond to particular drugs. Many investigators perform these types of studies by analyzing data from the Surveillance, Epidemiology and End Results (SEER) Tumor Registry, a national population-based cancer registry that collects cancer-related information.

To determine the accuracy of observational studies on cancer treatments, Dr. Sharon H. Giordano of the University of Texas MD Anderson Cancer Center in Houston and her colleagues compared the effectiveness of different cancer therapies in terms of prolonging survival in patients, using data from the SEER registry. They presented several examples, including re-analyses of previously published data. In all cases, they came up with improbable results, indicating how easy it is to generate questionable results when conducting an observational study.

In their first analysis, the researchers looked at data on a hormone therapy called androgen deprivation in men with stage III prostate cancer. Randomized clinical trials have shown that androgen deprivation can improve survival in these patients. When the investigators analyzed data **from the SEER registry of more than 5,000 men, they found that men treated with androgen deprivation actually had a higher risk of death from prostate cancer than men who did not receive the therapy.**

Dr. Giordano and her team next re-analyzed data from a previously published study of more than 43,000 men with localized prostate cancer who were treated compared with men who were not treated. Like the original study, the researchers’ analysis revealed that men who were treated for prostate cancer experienced lower mortality rates. However, they also found that in many cases, the cause of death was due to

something other than prostate cancer, such as diabetes or pneumonia.

Finally, the investigators re-analyzed data from a previously published study on the effects of fluorouracil-based chemotherapy for colon cancer. They came to the same conclusion as the original research study—that chemotherapy for node positive colon cancer is associated with improved survival. However, they found that the link between the treatment and survival was strongest for non-cancer deaths, which presumably are not related.

The authors attributed the improbable results found in their three analyses to selection biases when patients are treated. For example, selection bias occurs when patients with poorer prognoses are more likely to receive a more efficacious drug, or when patients with better underlying health are more likely to receive a more toxic treatment because they are more likely to tolerate it.

The authors concluded that their findings “suggest that the results of observational studies of treatment outcomes should be viewed with caution.” They recommended that analyses of observational data should at a minimum attempt to segregate patient outcomes into those that could possibly be due to the treatments vs. those that could not. Many observational studies on cancer treatments only report death rates from all causes and do not specify cancer-related deaths.

Public release date: 21-Apr-2008

Life expectancy worsening or stagnating for large segment of the US population

Boston, MA -- One of the major aims of the U.S. health system is improving the health of all people, particularly those segments of the population at greater risk of health disparities. In fact, overall life expectancy in the U.S. increased more than seven years for men and more than six years for women between 1960 and 2000.

Now, a new, long-term study of mortality trends in U.S. counties over the same four decades reports a troubling finding: These gains are not reaching many parts of the country; rather, the life expectancy of a significant segment of the population is declining or at best stagnating.

Researchers at the Harvard School of Public Health (HSPH) and the University of Washington found that 4% of the male population and 19% of the female population experienced either decline or stagnation in mortality beginning in the 1980s.

“There has always been a view in U.S. health policy that inequalities are more tolerable as long as everyone’s health is improving. There is now evidence that there are large parts of the population in the United States whose health has been getting worse for about two decades,” said Majid Ezzati, Associate Professor of International Health at HSPH and lead author of the study.

The majority of the counties that had the worst downward swings in life expectancy were in the Deep South, along the Mississippi River, and in Appalachia, extending into the southern portion of the Midwest and into Texas.

The researchers analyzed mortality data from the National Center for Health Statistics and population data from the U.S. Census Bureau between 1959 and 2001. The study is the first to look at mortality trends in the U.S. by county over such a long period of time. (County data is the smallest measurable unit for which mortality data is available.) **The National Center for Health Statistics stopped providing data after 2001.**

The results showed that, between 1961 and 1999, average life expectancy in the U.S. increased from 66.9 to 74.1 years for men and from 73.5 to 79.6 for women. Looking at individual counties, however, the researchers found that beginning in the 1980s, the best-off counties continued to improve but there was a stagnation or worsening of life expectancy in the worst-off counties--what the researchers refer to as "the reversal of fortunes." As a result, while men in the best-off counties lived 9.0 years longer than those in the worst-off counties in 1983, by 1999 that gap had increased to 11.0 years; for women the 1983 life expectancy gap of 6.7 years increased to 7.5 years by 1999. Over the past few decades, life expectancy in high-income countries around the world has gradually risen, with few exceptions.

Given the consistent trend of declining mortality rates in high-income countries, the results of this study, which show large segments of the American population experiencing stagnating or worsening health conditions, are particularly troubling. Ezzati said, "The finding that 4% of the male population and 19% of the female population experienced either decline or stagnation in mortality is a major public health concern." Christopher Murray, Director of the Institute for Health Metrics and Evaluation at the University of Washington and co-author of the study, added that "life expectancy decline is something that has traditionally been considered a sign that the health and social systems have failed, as has been the case in parts of Africa and Eastern Europe. The fact that is happening to a large number of Americans should be a sign that the U.S. health system needs serious rethinking."

The researchers also analyzed data on deaths from different diseases and showed that the stagnation and worsening mortality was primarily a result of an increase in diabetes, cancers and chronic obstructive pulmonary disease, combined with a slowdown or halt in improvements in cardiovascular mortality. An increase in HIV/AIDS and homicides also played a role for men, but not for women.

The diseases that are responsible for this troubling trend seem to be most related to smoking, high blood pressure, and obesity. "Smoking and blood pressure have a long history of being controlled through both personal and population strategies. There is good evidence on relatively low-cost and effective ways of dealing with these issues if one of the health system's imperatives becomes to close this widening life expectancy gap," said Ezzati.

Ralph's note - I must of got this wrong. Did they just say they stopped keeping life expectancy statistics for counties since 2001.

Public release date: 21-Apr-2008

Researchers detail chemotherapy's damage to the brain

commonly used chemotherapy drug causes healthy brain cells to die off long after treatment has ended and may be one of the underlying biological causes of the cognitive side effects – or “chemo brain” – that many cancer patients experience. That is the conclusion of a study published today in the *Journal of Biology*.

A team of researchers at the University of Rochester Medical Center (URMC) and Harvard Medical School have linked the widely used chemotherapy drug 5-fluorouracil (5-FU) to a progressing collapse of populations of stem cells and their progeny in the central nervous system.

“This study is the first model of a delayed degeneration syndrome that involves a global disruption of the myelin-forming cells that are essential for normal neuronal function,” said Mark Noble, Ph.D., director of the University of Rochester Stem Cell and Regenerative Medicine Institute and senior author of the study. “Because of our growing knowledge of stem cells and their biology, we can now begin to understand and define the molecular mechanisms behind the cognitive difficulties that linger and worsen in a significant number of cancer patients.”

Cancer patients have long complained of neurological side effects such as short-term memory loss and, in extreme cases, seizures, vision loss, and even dementia. Until very recently, these cognitive side effects were often dismissed as the byproduct of fatigue, depression, and anxiety related to cancer diagnosis and treatment. Now a growing body of evidence has documented the scope of these conditions, collectively referred to as chemo brain. And while it is increasingly acknowledged by the scientific community that many chemotherapy agents may have a negative impact on brain function in a subset of cancer patients, the precise mechanisms that underlie this dysfunction have not been identified.

Virtually all cancer survivors experience short-term memory loss and difficulty concentrating during and shortly after treatment. A study two years ago by researchers with the James P. Wilmot Cancer Center at the University of Rochester showed that upwards of 82% of breast cancer patients reported that they suffer from some form of cognitive impairment.

While these effects tend to wear off over time, a subset of patients, particularly those who have been administered high doses of chemotherapy, begin to experience these cognitive side effects months or longer after treatment has ceased and the drugs have long since departed their systems. For example, a recent study estimates that somewhere between 15

and 20 percent of the nation's 2.4 million female breast cancer survivors have lingering cognitive problems years after treatment. **Another study showed that 50 percent of women had not recovered their previous level of cognitive function one year after treatment.**

Two years ago, Noble and his team showed that three common chemotherapy drugs used to treat a wide range of cancers were more toxic to healthy brain cells than the cancer cells they were intended to treat. While these experiments were among the first to establish a biological basis for the acute onset of chemo brain, they did not explain the lingering impact that many patients experience.

The scientists conducted a similar series of experiments in which they exposed both individual cell populations and mice to doses of 5-fluorouracil (5-FU) in amounts comparable to those used in cancer patients. 5-FU is among a class of drugs called antimetabolites that block cell division and has been used in cancer treatment for more than 40 years. The drug, which is often administered in a “cocktail” with other chemotherapy drugs, is currently used to treat breast, ovarian, stomach, colon, pancreatic and other forms of cancer.

The researchers discovered that months after exposure, specific populations of cells in the central nervous – oligodendrocytes and dividing precursor cells from which they are generated – underwent such extensive damage that, after 6 months, these cells had all but disappeared in the mice.

Oligodendrocytes play an important role in the central nervous system and are responsible for producing myelin, the fatty substance that, like insulation on electrical wires, coats nerve cells and enables signals between cells to be transmitted rapidly and efficiently. The myelin membranes are constantly being turned over, and without a healthy population of oligodendrocytes, the membranes cannot be renewed and eventually break down, resulting in a disruption of normal impulse transmission between nerve cells.

These findings parallel observations in studies of cancer survivors with cognitive difficulties. MRI scans of these patients’ brains revealed a condition similar to leukoencephalopathy. This demyelination – or the loss of white matter – can be associated with multiple neurological problems.

“It is clear that, in some patients, chemotherapy appears to trigger a degenerative condition in the central nervous system,” said Noble. “Because these treatments will clearly remain the standard of care for many years to come, it is critical that we understand their precise impact on the central nervous system, and then use this knowledge as the basis for discovering means of preventing such side effects.”

Noble points out that not all cancer patients experience these cognitive difficulties, and determining why some patients are more vulnerable may be an important step in developing new ways to prevent these side effects. Because of this study, researchers

now have a model which, for the first time, allows scientists to begin to examine this condition in a systematic manner.

Public release date: 23-Apr-2008

Could blood transfusions cause harm?

“FOR the life of the flesh is in the blood. No soul of you shall eat blood.” So says the Bible’s book of Leviticus, and it is for this reason that Jehovah’s Witnesses shun blood transfusions. They do not, however, shun surgery. As long as surgeons use special techniques, Jehovah’s Witnesses can have surgery - including operations with the greatest potential for blood loss, such as open-heart surgery - without ever receiving a drop of someone else’s blood.

Now some surgeons and anaesthetists are questioning whether every patient shouldn’t get the same treatment. Over the past decade a number of studies have found that, far from saving lives, blood transfusions can actually harm many patients.

The problem is not the much-publicised risk of blood-borne infectious agents, such as HIV, but the blood itself. Study after study has shown that transfusions, particularly those containing red blood cells, are linked to higher death rates in patients who have had a heart attack, undergone heart surgery, or who are in critical care. The exact nature of the link is uncertain, but it seems likely that chemical changes in ageing blood, their impact on the immune system, and the blood’s ability to deliver oxygen are key.

In fact, most experts now agree that the risk posed by the transfused blood itself is far greater than that of a blood-borne infection. “Probably 40 to 60 per cent of blood transfusions are not good for the patients,” says Bruce Spiess, a cardiac anaesthesiologist at Virginia Commonwealth University in Richmond.

Such claims have led this week to the US National Institutes of Health issuing a call for proposals to study the problem. Also this week, the Joint Commission in Chicago, which accredits US hospitals, is holding the first of several meetings to look for ways to reduce the risks. It is expected to at least conclude that hospitals should be more selective in the use of transfusions.

Blood transfusion became a mainstay of medicine during the two world wars, where it was used as a last resort to save soldiers who had suffered massive blood loss. But now, far from being restricted to catastrophic bleeding, transfusions are routinely used as an optional treatment, most commonly for patients in intensive care or undergoing major surgery. In these situations, mostly small volumes of red cells are transfused, usually after they have been stored at 4 °C for anything up to 42 days.

The rationale behind such blood transfusions seems incontrovertible. Red cells deliver vital oxygen to tissues, and seriously ill patients who are also anaemic fare less well, so a

transfusion should help. Those assumptions went untested for the better part of a century.

Things started to change in 1999 with a randomised controlled trial on 838 critical care patients in Canada that used haemoglobin levels to determine when a blood transfusion was given. Normal levels of haemoglobin, the oxygen-carrying protein in red cells, range from 120 to 170 grams per litre. A normal haematocrit - the proportion of red cells in the blood - ranges from 36 to 50 per cent. Doctors decide whether to give a transfusion based on a number of factors, including haemoglobin levels and haematocrit, and the patient's overall robustness. Many guidelines exist, and practice varies from one hospital or doctor to another, but it is common for patients to receive transfusions when their haemoglobin dips to between 70 and 100 g/l or their haematocrit to 21 to 30 per cent.

But the Canadian study found significantly fewer patients died in hospital, 22 versus 28 per cent, if they received transfusions only when their haemoglobin fell below 70 g/l rather than when it fell below 100 g/l.

A more recent study has found that in heart attack patients with haematocrits of over 25 per cent, a transfusion is associated with more than three times the risk of death or a second heart attack within 30 days compared with not having a transfusion (Journal of the American Medical Association, vol 292, p 1555).

For almost 9000 patients who had heart surgery in the UK between 1996 and 2003, **receiving a red cell transfusion was associated with three times the risk of dying in the following year and an almost sixfold risk of dying within 30 days of surgery compared** with not receiving one. Transfusions were also associated with more infections and higher incidences of stroke, heart attack and kidney failure & complications usually linked to a lack of oxygen in body tissues (Circulation, vol 116, p 2544).

“There is virtually no high-quality study in surgery, or intensive or acute care - outside of when you are bleeding to death - that shows that blood transfusion is beneficial, and many that show it is bad for you,” says Gavin Murphy, a cardiac surgeon at the Bristol Heart Institute, who ran the UK study.

Organisations such as the American Society of Anaesthesiologists have started recommending that doctors be more conservative about ordering transfusions. But many experts worry that the recommendations are being ignored, and don't go far enough. Transfusion, they say, should only be used as a last resort, and far greater effort should go into preventing blood loss in the first place and ensuring patients are not anaemic before surgery.

“Usually when there is any clinical uncertainty about a treatment you don't give it, but with transfusions we do,” says James Isbister of the Royal North Shore Hospital in Sydney, who is an adviser to the Australian Red Cross Blood Service.

A priority is to find out how transfusions can be harmful. One possibility is that they affect the patient's immune system. **Blood transfusions are typically teeming with cytokines - chemicals that modify immune cells - and both the cytokines and white blood cells in donated blood have been shown to affect the action of "recipient" immune cells in the lab. Before modern immunosuppressant drugs were developed, blood transfusions were sometimes used to achieve immunosuppression during kidney transplants.**

Several of the recent studies have found an association between contracting infections in hospital and transfusions, which seems to support the theory. "The more units of blood patients receive, the more likely they are to get infections," says Mary Rogers at the University of Michigan in Ann Arbor, who has studied transfusions in US heart surgery patients.

But people should not stop donating blood, stress experts. "Transfusion is critical in several situations such as severe haemorrhage. We also need blood for essential products such as antibodies and clotting factors for people with haemophilia," says Isbister.

Public release date: 25-Apr-2008

Study shows common vitamin and other micronutrient supplements reduce risks of TB recurrence

New findings show a link between micronutrient supplementation and reduced risk of recurrence during tuberculosis chemotherapy, according to a study published in the June 1 issue of The Journal of Infectious Diseases, now available online.

Nutritional assessment and support in tuberculosis therapy, once common before the advent of anti-TB drugs, is no longer an integral part of clinical therapy in most low-income countries even though poor nutrition impairs the immune system and leads to risk of further infection and relapse.

In Tanzania, Eduardo Villamor, MD, DrPH, of the Harvard School of Public Health, and a team of researchers conducted a randomized trial of micronutrients using doses of vitamins A, B-complex, C, E, and selenium or placebo in 887 patients receiving tuberculosis therapy, who were then followed for a median of 43 months; 471 were HIV-coinfected and not receiving antiretroviral therapy and 416 were HIV-uninfected.

The study showed that micronutrient supplementation was associated with reduced rates of TB recurrence. In the study, both HIV-infected and uninfected patients with pulmonary TB who were receiving the supplements had a decreased risk of TB recurrence during the next few months after the TB culture had become negative: 45 percent overall and 63 percent in HIV-infected patients. Supplementation also reduced the incidence of peripheral neuropathy by 57 percent, irrespective of HIV status, and increased the levels of certain cells (CD3 and CD4) important in immune response in HIV-uninfected patients.

As Villamor noted, "We found that providing micronutrients to patients with tuberculosis who were

undergoing anti-TB treatment appeared to decrease the risk of recurrences. This effect was stronger in patients infected with HIV than in those who were HIV-negative. This could be relevant because TB reactivation is common among HIV-infected persons.” Villamor further noted, “that it will be important to find out whether micronutrients improve the outcome of TB treatment in TB-HIV co-infected patients who are undergoing antiretroviral therapy.”

Christine Stabell Benn, MD, and colleagues in Copenhagen noted in their accompanying editorial that results to date relating to TB recurrence and mortality are inconsistent, with previous studies using different dosages and combinations of micronutrients. Dr. Stabell pointed out that the promising results of the Villamor study show that further investigations are needed to develop optimal combinations of micronutrients that can be provided inexpensively in TB therapy to reduce relapses and increase survival.

Public release date: 28-Apr-2008

Epilepsy drug causes bone loss in young women

ST. PAUL, Minn. – Young women who took the commonly used epilepsy drug phenytoin for one year showed significant bone loss compared to women taking other epilepsy drugs, according to a study published in the April 29, 2008, issue of *Neurology*®, the medical journal of the American Academy of Neurology.

Researchers tested the bone health of 93 women with epilepsy who were between the ages of 18 and 40 and were taking the epilepsy drugs phenytoin, carbamazepine, lamotrigine or valproate. Bone mineral density was measured at the spine and two areas of the hip, (the femoral neck and total hip) at the beginning of the study and one year later. Researchers also evaluated each woman’s nutrition and physical activity, along with other factors that affect bone health.

The study found women taking phenytoin for one year lost 2.6 percent of the bone density in the femoral neck of the hip. Women taking the other epilepsy drugs did not lose any bone density in the femoral neck. There was no bone loss at the spine or the total hip in any group.

“This is a significant amount of bone loss and raises serious concerns about the long-term effects of taking phenytoin in young women with epilepsy,” said study author Alison M. Pack, MD, with Columbia University in New York, NY, and member of the American Academy of Neurology. “This is one of the first prospective studies to examine the long-term effects of common epilepsy drugs on rates of bone loss in young women.”

“This amount of bone loss, especially if it continues over the long term, could put these women at increased risk of fractures after menopause,” Pack said. Femoral neck fractures are tied to a higher risk of death in elderly people.

Ralph’s Note - Just a cautionary note, since some of these medications are now used for anxiety.

Public release date: 28-Apr-2008

Diabetes drugs may be related to fracture risk

A widely used class of diabetes medications appears to be associated with an increased risk for fractures, according to a report in the April 28 issue of *Archives of Internal Medicine*, one of the JAMA/Archives journals.

“The insulin-sensitizing thiazolidinediones are a relatively new and effective class of oral antidiabetic

agents that have gained wide use in clinical conditions characterized by insulin resistance,” the authors write as background information in the article. Two drugs in this category, pioglitazone and rosiglitazone, account for 21 percent of oral diabetes medications prescribed in the United States and 5 percent of those in Europe. Recent studies have suggested that these therapies may have unfavorable effects on bone, resulting in slower bone formation and faster bone loss.

Christian Meier, M.D., of University Hospital Basel, Basel, Switzerland, and colleagues studied 1,020 patients with diabetes who had fractures diagnosed at British general practitioners’ offices between 1994 and 2005. For each of those patients, up to four control patients with diabetes who were the same age and sex and had the same physician but did not have fractures were selected, for a total of 3,728 matched controls.

After adjusting for other risk factors, individuals who were currently taking rosiglitazone and pioglitazone had approximately double or triple the odds of hip and other non-spine fractures than those who did not take these drugs. The odds for fracture were increased among patients who took the drugs for approximately 12 to 18 months and the risk was highest for those with two or more years of therapy.

“This analysis provides further evidence of a possible association between long-term use of thiazolidinediones and fractures, particularly of the hip and wrist, in patients with diabetes mellitus,” the authors conclude. “No such effect was seen for other antidiabetic drugs in this study population. These findings, although they are consistent with recently reported data from a randomized trial, are based on relatively few thiazolidinedione-exposed patients and need to be confirmed by additional observational studies and by controlled clinical trials.”

Public release date: 28-Apr-2008

Osteoporosis drug may be associated with irregular heartbeat

Alendronate, a medication used to prevent fractures in women with osteoporosis, may be associated with an increased risk of atrial fibrillation, a type of abnormal heart rhythm, according to a report in the April 28 issue of Archives of Internal Medicine, one of the JAMA/Archives journals.

Other recent studies have reported atrial fibrillation as an unexpected adverse effect of bisphosphonates, a class of drugs that includes alendronate and other medications that affect the body’s calcium levels, according to background information in the article. Atrial fibrillation occurs when the atria, the smaller upper chambers of the heart, begin to beat irregularly and rapidly.

Susan R. Heckbert, M.D., Ph.D., of the University of Washington and Group Health, Seattle, and colleagues studied 719 women with confirmed atrial fibrillation that began between 2001 and 2004 and 966 control women who were the same age but did not have atrial fibrillation.

More patients with atrial fibrillation than control patients had ever used alendronate (47 or 6.5 percent vs. 40 or 4.1 percent). After adjusting for other risk factors, having taken alendronate was associated with a higher risk of atrial fibrillation compared with never having taken any bisphosphonate. The researchers estimate that approximately 3 percent of new atrial fibrillation cases in this population may be attributed to alendronate use.

Bisphosphonates may disrupt the function of regulatory proteins, trigger inflammation and cause small decreases in blood calcium and phosphate levels, any of which could affect the chambers of the heart known as atria and therefore alter the heartbeat, the authors note. “More information is needed about whether bisphosphonates could have effects on atrial tissue in the long term through these or

other mechanisms that favor the initiation or persistence of atrial fibrillation,” they write.

“In conclusion, all drugs have benefits and adverse effects,” the authors continue.

“When new information becomes available about a previously unrecognized benefit or adverse effect, physicians and patients must reweigh the current knowledge about benefits and risks in making treatment decisions for each patient. The benefits of fracture prevention in patients at high risk for fracture will generally outweigh the possible risks of atrial fibrillation. However, it is important to carefully weigh the benefits against the possible risk of atrial fibrillation in women who have only modestly increased fracture risk and in women who have risk factors for atrial fibrillation, such as diabetes mellitus, coronary disease or heart failure.”

Ralph’s Note- They say all drugs have side effects. I don’t believe that has to be the case. Maybe when we lose the fascination of using toxins as drugs. The end to this dark ages of pharmaceuticals will end.

Public release date: 28-Apr-2008

Hormone therapy in postmenopausal women associated with increased risk of stroke

Postmenopausal women taking hormone therapy appear to have an increased risk of stroke regardless of when they started treatment, according to a report in the April 28 issue of Archives of Internal Medicine, one of the JAMA/Archives journals.

“Many controversies remain regarding the risks and benefits of postmenopausal hormone therapy,” according to background information in the article. There have been previous studies analyzing the risk of stroke with use of hormone therapy, but these did not determine stroke risk for younger women taking hormone therapy near the onset of menopause.

Francine Grodstein, Sc.D., and colleagues, at Brigham and Women’s Hospital (BWH) and Harvard Medical School, Boston, evaluated stroke risk associated with hormone therapy in 121,700 women (age 30 to 55 at the beginning of the study) who participated in the Nurses’ Health Study from 1976 to 2004. There were 360 cases of stroke among women who had never used hormones and 414 cases of stroke among women who were currently using hormones.

Compared to women who had never used hormones, women currently taking hormone therapy had an increased risk for stroke (39 percent for those taking estrogen and 27 percent for those taking estrogen with progestin). “This increased risk was observed for women initiating hormone therapy at young ages or near menopause and at older ages or more than 10 years after menopause,” the authors write. Taking hormone therapy for less than five years at younger ages was not linked to a clear increase in stroke, possibly due to the small number of cases.

“The incidence of stroke was relatively low in younger women, and the attributable risk in women aged 50 through 54 years indicated approximately an additional two cases of stroke per 10,000 women per year taking hormones,” the authors write. There was also a strong relationship found between dose of estrogen and stroke, with larger doses increasing the risk.

“In summary, our findings in the Nurses’ Health Study indicate that hormone therapy is associated with an increased risk of stroke, regardless of the hormone regime or the timing of hormone therapy initiation,” the authors conclude. “However, in younger women, who are at lower absolute risk of stroke, the attributable risk of stroke owing to hormone use is modest, and our data suggest that risk

might be further minimized by lower doses and shorter duration of treatment.”

Public release date: 29-Apr-2008

Aspirin-like compounds increase insulin secretion in otherwise healthy obese people

Aspirin-like compounds (salicylates) can claim another health benefit: increasing the amount of insulin produced by otherwise healthy obese people. Obesity is associated with insulin resistance, the first step toward type 2 diabetes.

Aspirin and other salicylates are known to reduce blood glucose in diabetic patients. New research accepted for publication in the *Journal of Clinical Endocrinology & Metabolism* reveals a similar beneficial effect among obese individuals by increasing the amount of insulin secreted into the bloodstream.

“The administration of a salicylate led to the lowering of serum glucose concentrations,” said Jose-Manuel Fernandez-Real of the Institut d’Investigacio Biomedica de Girona and CIBEROBN Fisiopatologia de la Obesidad, Spain, and lead author of the study. “These findings highlight the importance of further research on the possible therapeutic benefit of aspirin in the fight against type 2 diabetes.”

For their study, Fernandez-Real and his colleagues evaluated the effects of triflusal (a derivative of salicylate) on 28 subjects (nine men and 29 women). The average age of the participants was 48 years old and their average Body Mass Index (BMI) was 33.9. A BMI of over 30 is considered obese. During three, four-week treatment periods, the study participants received a 600 mg dose, a 900 mg dose, or a placebo once per day.

The researchers found that administration of triflusal led to decreased fasting serum glucose. Contrary to their expectations, insulin sensitivity did not significantly change during the trial. Insulin secretion, however, significantly increased in relation to the dose size.

In conjunction with the human studies, the researchers also conducted laboratory studies on insulin-producing cells (known as islets of Langerhans) from mice and humans. The researchers observed that triflusal significantly increased the insulin secreted by these cells.

“Aspirin therapy has been recognized to improve glucose tolerance and to reduce insulin requirements in diabetic subjects,” said Fernandez-Real. “To our knowledge, this is the first study to show that salicylates lowered serum glucose in non-diabetic obese subjects. We believe that this effect was due to a previously unsuspected increase in insulin secretion rather than enhanced insulin sensitivity.”

Ralph’s Note - Stupid, Stupid, Stupid people. It is the constant over abundance of Insulin that creates Insulin Resistance. So since the study did not come out favorable, they just re-wrote the books.

Public release date: 29-Apr-2008

Families of contaminated heparin victims tell stories of deaths

Contaminated heparin, a blood thinner used in dialysis and other treatments, has been connected to 81 deaths and 785 severe allergic reactions, said Rep. Bart Stupak, D-Mich., chairman of the House Energy and Commerce subcommittee on oversight and investigations.

The heparin, made from ingredients imported from China, has been recalled by Baxter International and the Food and Drug Administration has blocked imports from the Chinese company.

The FDA found the drug was contaminated with oversulfated chondroitin sulfate, which mimics heparin and thus was not detected in routine testing, Stupak noted. When it was introduced into the product has not yet been determined.

Janet Woodcock, director of the FDA's Center for Drug Evaluation and Research, told the subcommittee that in recent years major changes have occurred in where drugs are made.

For example, in 2007 the agency received only about 150 applications for approval to make generic drugs in the United States compared to nearly 500 from China and more than 400 from India, she said.

"Great vigilance is required to maintain" drug safety, she said.

Baxter president Robert L. Parkinson Jr., said in testimony prepared for the subcommittee that his company is "greatly concerned that our heparin product appears to be the target of a deliberate adulteration scheme."

"The complexity of the global drug supply chain creates new and emerging risks that call for new ways of thinking about, identifying and addressing vulnerabilities, and that resting on old standards — even ones that have worked for decades — is no longer enough," Parkinson said

Ralph's Note - This implies a criminal act of industrial sabotage, with the result of murder.

Public release date: 29-Apr-2008

Study says FDA allowed risky tests of blood substitutes

CHICAGO | Experimental blood substitutes raised the risk of heart attack and death, yet U.S. regulators allowed human testing to continue despite warning signs, a scathing new report says.

The U.S. Food and Drug Administration fell short, the report contends, even as red flags popped up during studies by five biotech companies. **Rules barred the FDA from releasing company trade secrets, and that kept some information hidden and may have led to unnecessary heart attacks and deaths,** wrote the authors, who are government scientists and consumer advocates.

"There shouldn't be secret science," said the lead author of the report, Charles Natanson of the National Institutes of Health Clinical Center. Safety data need "to be made public expeditiously so science can build on the mistakes" of previous research, he said.

The report, being published online today by the Journal of the American Medical Association, is the latest analysis of the risks of blood substitutes, which have been in testing for more than a decade. It was written by scientists with the NIH Clinical Center and advocates with the watchdog group Public Citizen.

One of the biotech companies, Evanston, Ill.-based Northfield Laboratories Inc., conducted a national study in 2005-06 involving 720 patients through 32 trauma centers, including the University of Kansas Medical Center.

KU Medical Center stocked ambulances in Wyandotte, Douglas and Leavenworth counties with Northfield's blood substitute, PolyHeme. The study ended in August 2006.

The hospitals participating in the study could give the blood substitute to patients without their knowledge, so KU Medical Center gave blue wristbands to residents who requested them that would show they did not want to receive PolyHeme.

Johnson County officials opted out of the study, saying they did not want to participate because of the lack of consent by unconscious trauma patients.

A safe replacement for blood would be a breakthrough for medicine and a big money-maker for companies that produce it. It could save lives on battlefields. Unlike ordinary blood, it could, theoretically, be stored for years without refrigeration. It also would work with any blood type and would not carry infections like hepatitis or the AIDS virus.

By the end of 2000, a dozen studies of blood substitutes had been completed. By then, FDA officials would have known enough about cumulative risks to put a halt on further experiments, the JAMA report contends.

But the FDA looked at each product and each use separately — in surgery, in trauma, in stroke patients — rather than pooling the results to get a fuller picture of the risk, Natanson said.

In 2006, after a lawsuit by Public Citizen protesting a closed-door hearing, the FDA halted a test by the Navy, which planned to use a blood substitute on civilian trauma victims. Such tests raised ethical concerns about giving trauma patients an experimental product without their consent.

Jay Epstein, director of FDA's office of blood research and review, defended the agency's decisions about human testing of the products despite risks. The agency has found enough differences among the individual products and their intended uses to allow some studies to proceed, Epstein said Friday in a conference call with reporters.

Currently, there are no approved blood substitutes or clinical studies of them in the United States. However, American companies are testing them on people in South Africa

and seven European countries. South Africa has approved one of the products, Hemopure, made by Biopure Corp., based in Cambridge, Mass., for use in anemic surgery patients.

Ralph's Note - Experimenting on people without consent, with a drug that is dangerous. With the approval of a government agency. My solution to this, is that the FDA official responsible for this should volunteer for a blood transfusion with this new product.