depression and urinary incontinence. They were also assessed for a history of agitation, wandering, paranoia, falls and walking difficulties. Survival was measured from the time of initial diagnosis until death or when the study ended in 2001.

When compared to the life expectancy of the general U.S. population, overall survival was lower for people with AD in all age groups. For instance, median survival was 8 years for women aged 70 diagnosed with AD, which is about half the life expectancy of similarly aged American women who do not have the disease. Similar trends were found among 70-year-old men with AD who had a median survival time of 4.4 years compared with 9.3 years for the U.S. population.

Survival was poorest among those aged 85 and older who wandered, had walking problems and had histories of diabetes and congestive heart failure. However, the difference in the life expectancy between those who were diagnosed with AD and the general population progressively diminished with age. At 85, for example, median life expectancy for women with AD was 3.9 years after diagnosis compared to about 6 years for women who didn’t have the disease. Similarly, 85-year-old men with newly diagnosed AD had a median life expectancy of 3.3 years compared to 4.7 for men of the same age who didn’t have AD.

Poor scores on the initial tests of memory and cognitive performance predicted shorter survival time after diagnosis. In fact, a five-point drop in one key test, the Mini-Mental State Exam, during the first year following diagnosis, predicted up to a 66 percent increase in the risk of death after that initial year. Walking problems, congestive heart failure, and a history of falls, diabetes and ischemic heart disease were other important predictors of reduced life expectancy after AD diagnosis.

AD is an irreversible disorder of the brain, robbing those who have it of memory and, eventually, overall mental and physical function, leading to death. It’s the most common cause of dementia among people over age 65. Recent studies estimate that up to 4.5 million people currently have the disease, and the prevalence (the number of people with the disease at any one time) doubles every 5 years after the age of 65. By 2050, if current population trends continue and no preventive treatments become available, some 13.5 million Americans will have Alzheimer’s disease.

**NSAIDS May Hamper Fertility**

In a brief editorial, doctors from the Queen Elizabeth Hospital at the University of Adelaide in Australia point out that a specific group of non-steroidal anti-inflammatory drugs (NSAIDs) affect ovulation and could have a negative impact on fertility. From both human and animal studies, they have gathered examples of the ways in which COX-2 inhibitors (NSAIDs, which include Celebrex and Vioxx) can impair fertilization, embryo development, implantation and continuing pregnancy.

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**Vaccine Protects Against SARS In Mice**

An experimental vaccine prevents the SARS virus from replicating in laboratory mice, according to a new report in the April 1 issue of Nature. Scientists at the Vaccine Research Center (VRC) of the National Institute of Allergy and Infectious Diseases (NIAID), one of the National Institutes of Health, developed the vaccine. The vaccine was tested in a mouse model of SARS infection recently validated by other NIAID investigators.

The VRC scientists are preparing further experiments to evaluate the vaccine’s safety and potential to induce similar immune responses in humans. The vaccine contains a small piece of SARS virus DNA, insufficient to reproduce the SARS virus yet able to stimulate a protective immune response.

Scientists found that their experimental DNA vaccine caused the immune system to produce both antibodies and cells designed specifically to defend against the SARS virus.

They also determined, however, that the antibodies alone were responsible for the dramatic reduction in virus particles in mice that received the vaccine.

The SARS virus infected 8,098 people and killed 774 worldwide between November 1, 2002, and July 31, 2003, according to the World Health Organization.
For instance, for pregnancy to occur, it’s essential that development of the endometrium, the uterine lining, be synchronized to the division of the embryo, so that when the embryo is sufficiently developed to implant, the endometrium is ready. These drugs, by interfering with the synthesis of prostoglandins, disrupt endometrial development—which is similar to an inflammatory response—and can make it impossible for an embryo to implant. The editorial appears in the March 2004 Fertility and Sterility.

Folic Acid Supplementation Reducing Neural Tube Defects

The introduction of folic acid fortification of breads and grains in the U.S. has been a great success that has noticeably driven down the incidence of neural tube defects (NTD), according to a study in the March issue of Obstetrics & Gynecology.

Researchers noted a 32 percent drop in the rate of pregnant women found to be at high risk of NTDs and a 20 percent drop in infants born with NTDs since folic acid fortification was implemented in the U.S. in 1998.

Researchers studied the maternal serum alpha-fetoprotein (MSAFP) results from more than 61,000 pregnant women who underwent prenatal screening for birth defects. (MSAFP is a prenatal blood test performed in the second trimester to screen for certain birth defects, including spina bifida.) MSAFP results first were studied for 27,020 pregnancies in 1997, one year prior to the FDA’s folic acid mandate. These data were then compared to MSAFP results from 34,099 pregnancies in 2000 at the same laboratory, more than two years after implementation of the FDA folic acid mandate.

According to the researchers, while there has been a 20 percent drop in NTDs incidence at birth in the U.S., their data show that the actual decrease is even greater when measured in the mid-trimester because birth data don’t accurately reflect the overall drop. The researchers note that while more studies are needed to determine the optimal level of folic acid fortification, the current FDA mandate represents the biggest single step to date in the effort to reduce birth defects.

Calories Count in Fighting Obesity

The FDA and DHHS are emphasizing that “calories count” for the millions of Americans who are overweight and obese and trying to slim down.

A new report from the FDA’s Obesity Working Group includes recommendations to strengthen food labeling, to educate consumers about maintaining a healthy diet and weight and to encourage restaurants to provide calorie and nutrition information. It also recommends increasing enforcement to ensure food labels accurately portray serving size, revising and reissuing guidance on developing obesity drugs and strengthening coordinated scientific research to reduce obesity and to develop foods that are healthier and low in calories.

The FDA report comes on the heels of a new study from HHS’s Centers for Disease Control and Prevention (CDC) that shows poor diet and inactivity are poised to become the leading preventable cause of death among Americans—causing an estimated 400,000 deaths in 2000. CDC estimates that 64 percent of all Americans are overweight, including more than 30 percent who are considered obese. About 15 percent of children and adolescents, aged 6 to 19, are overweight—almost double the rate of two decades ago.

“Our report concludes that there is no substitute for the simple formula that ‘calories in must equal calories out’ in order to control weight,” said FDA Deputy Commissioner Lester M. Crawford, DVM, PhD. “We’re going back to basics, designing a comprehensive effort to attack obesity through an aggressive, science-based, consumer-friendly program with the simple message that ‘Calories Count.’”

New Eggs Continue to Develop in Adult Mice

Contrary to long-held scientific views that the number of oocytes (eggs) in the ovaries of most mammals is fixed at birth, scientists report that new oocyte-containing follicles continue to develop in the ovaries of adult mice. The research suggests that these new oocytes come from stem cells located in the ovary. The study, supported by the NIA, one of the National Institutes of Health, was conducted by Jonathan L. Tilly, PhD, and colleagues at Massachusetts General Hospital and Harvard Medical School and appears in the March 11, 2004, issue of Nature.

Some experts are saying that if this finding is confirmed, then Dr. Tilly and his colleagues would seem to have rewritten the book on reproductive biology—at least for mice for now.

Further study about how oocyte production in adults is controlled...