

## From the NIH

### Intensive blood sugar control produces long-lasting benefits

Intensive control of blood sugar can produce long-lasting benefits for persons with diabetes, say researchers who followed up the Diabetes Control and Complications Trial (DCCT) with the Epidemiology of Diabetes Interventions and Complications (EDIC) 4 years later.

In the original trial (DCCT), the 1441 participants with type 1 diabetes were placed on either intensive treatment, which aimed at keeping hemoglobin A1c (HbA1c) as close to normal as possible (6%), or conventional treatment. Intensive treatment included administration of

at least three insulin injections a day, or an insulin pump, and frequent monitoring of blood glucose. Conventional treatment included one or two insulin injections a day with a check of urine or blood glucose once daily.

The results of the original study showed that the intensive group had HbA1c levels of approximately 7.2 (compared with 9.1 in the conventionally treated group) and greatly reduced diabetic eye, nerve, and kidney disease. This lowered risk of eye and kidney disease continued though the intensive group's HbA1c values leveled off at about 8% during the first 4 years of EDIC.

Scientific evidence indicates that intensive blood sugar management is important in type 1 and type 2 diabetes. The

implication is that the earlier intensive therapy begins and the longer it is maintained, the greater the possibility of avoiding diabetic complications.

Results of the Epidemiology of Diabetes Interventions (EDIC) were published in the February 10 issue of the *New England Journal of Medicine*.

### No decline in melatonin levels in seniors

Advertising that claims melatonin levels are reduced in older people and promising to restore health if the elderly take melatonin compounds are based on a false premise, as shown by a new study conducted over 5 years by the National Institutes of Health (NIH), Harvard Medical School, and Brigham and Women's Hospital in Boston.

Scientists studied 34 healthy seniors, both men and women between 65 to 81 years of age, and compared their melatonin levels with men aged 18 to 30 years. They found that the two groups' nighttime melatonin levels did not differ significantly.

Study participants were medication-free and did not have sleep complaints. Each spent 3 days and 3 nights isolated in a sleep laboratory, with scientists taking blood samples to assess melatonin production.

### Reversing the aging process with blueberries

Eating blueberries may have an effect on age-related motor changes and memory loss, say researchers who conducted a study funded by the National Institute on Aging (NIA) and the U.S. Department of Agriculture. Animals fed an 8-week-long diet supplemented with fruit or vegetable extracts with potential antioxidant effects

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# Federal update

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showed improvement in balance and coordination as well as working memory.

Free radicals are produced when cells convert oxygen; however, toxic amounts of free radicals destroy cell machinery, resulting in oxidative stress. Blueberries and other foods that contain antioxidants may act to protect the body against oxidative stress.

Researchers also found that all groups receiving supplements showed signs of the presence of vitamin E in their brains.

## From the CDC

### Race/ethnicity and excess death associated with stroke

Deaths from stroke are more likely to occur in African-American, American Indian and Alaska Native, Asian and Pacific Islander, and Hispanic adults between the ages of 35 and 64 years than whites in the same age group. Moreover, African-Americans 35 to 54 years of age are four times more likely to die from stroke than white adults of the same age.

To reduce or delay this risk, prevention strategies to help avoid unhealthy behaviors that result in risk factors, such as hypertension, cigarette smoking, overweight, diabetes, and physical inactivity, must be implemented early in life.

### Internationally adopted children entering the United States should be screened for lead poisoning

The prevalence of elevated blood levels among Chinese immigrant children was higher (8% to 13%) than blood levels of children in the United States (2% to 6%), a survey of international adoption medical specialists revealed.

Blood tests for immigrant children younger than 15 years of age are not required on entry into the United States;

therefore, screening should occur after entry, and those with elevated blood levels should receive care in accordance with CDC guidelines and state and local laws, recommends the CDC.

This study was printed in the *Morbidity and Mortality Weekly Report* for February 11.

## From the FDA

### FDA concerned with supplement claims for pregnancy-related conditions

The Food and Drug Administration has advised manufacturers of dietary supplements, vitamins, and herbal remedies to avoid claims for treatment of pregnancy-related conditions.

The FDA had released new rules that increased the conditions manufacturers could claim to treat without prior agency approval early in February, but concern from critics that supplements' effects on pregnancy-related conditions had not been thoroughly tested made FDA officials decide to review their policy.

Former FDA-approved statements, including the ability of folic acid to decrease the rate of some types of birth defects, were not in question.

### Risk of drug interactions with St. John's wort and indinavir and other drugs

An FDA public health advisory presented the results of a study that showed a significant drug interaction between an herbal product, St. John's wort (*Hypericum perforatum*), and indinavir, a protease inhibitor used to treat HIV infection. Results of the study, conducted by the National Institutes of Health, indicate that concomitant use of St. John's wort and indinavir substantially decreases indinavir plasma concentrations. This may be due to induction of the cytochrome P450 metabolic pathway.

Based on these results, it is expected that St. John's wort may significantly decrease blood concentration of all currently marketed HIV protease inhibitors and possibly other drugs that are similar-

ly metabolized, including the nonnucleoside reverse transcriptase inhibitors.

Many prescription drugs are metabolized via this metabolic pathway; therefore, health professionals should ask about the patient's use of St. John's wort in all forms, including tea and capsules, to prevent loss of therapeutic effects of these drugs.

### Immediate federal action warranted for egg safety

Egg safety has been targeted by the President's Council on Food Safety as an issue that warrants immediate interagency action. In a plan announced in December, "Egg Safety from Production to Consumption: An Action Plan to Eliminate Salmonella Enteritidis Illnesses Due to Eggs," the interim goal of a 50% reduction in egg-associated *Salmonella enteritidis* illnesses was presented.

The President's Council appointed one responsible agency for each stage of the farm-to-table continuum based on the strengths of each agency. The Food and Drug Administration will develop standards for the producer and state agencies will provide inspection and enforcement of the standards on the farm. The Food Safety and Inspection Service will develop standards for shell egg packers and egg products processors. The Centers for Disease Control and Prevention will conduct monitoring activities focusing on human health, and the FDA will conduct monitoring of the food supply.

An Egg Safety National Standards Work Group, with representatives from the FDA, USDA, and several states met in January to discuss standards. ♦