

Must Babies Go on Low-Fat Diets Too?

The easy life of a child doesn't last long these days. After age 2, almost everyone should moderate fat consumption, nutritionists say (SN: 4/13/91, p. 229). But before that age, children may eat essentially as much fat and cholesterol as they want, to help ensure that they develop normally, physicians in the United States and elsewhere advise.

Now, a controversial new study suggests that this high-fat advice may fail to serve children's best interests. Even babies 7 to 13 months old appear to benefit from a diet somewhat low in saturated fat, report Helena Lapinleimu of the University of Turku in Finland and her colleagues in the Feb. 25 LANCET.

They found that healthy Finnish babies who ate less saturated fat for 6 months had 6 to 8 percent lower concentrations of cholesterol in their blood than infants who continued to eat a somewhat richer, though still low-fat, diet. Both groups grew at a similar rate.

Physicians have advised against restricting the fat and cholesterol intake of children under age 2 because their immature intestinal systems may not be able to derive sufficient calories from a low-fat, low-cholesterol diet, says Margo A. Denke of the University of Texas Southwestern Medical Center in Dallas. This age group requires plenty of the low-bulk, high-energy calories that foods rich in fat and cholesterol provide.

Moreover, many physicians argue, while a low-fat, low-cholesterol diet may harm a baby, having low cholesterol may not help.

"This is the first study I'm aware of where [scientists] tried to test a cholesterol-lowering diet in infants," Denke says. However, the study shows only that lowering babies' intake of saturated fat blunts age-related cholesterol increases, she says. "And we don't know if that's healthy or not."

William J. Klish of Baylor College of Medicine in Houston says he knows of no strong evidence that fats pose a risk to children under age 3.

In the Finnish study, nutritionists monitored the babies to make certain they got proper nourishment. Klish and others note that one danger of advising parents to restrict children's fat intake is that some parents unintentionally deprive them of nutrients — a particularly significant health hazard for infants.

In the study, nutritionists provided special counseling to the parents of 540 babies when the infants were 7, 8, 10, and 13 months old. The diet the counselors recommended matches what many U.S. physicians now advise for



A well-fed baby?

almost everyone over age 2.

Calories derived from fat should constitute 30 to 35 percent of total calories and come equally from polyunsaturated, monounsaturated, and saturated fats. Daily consumption of cholesterol should remain under 200 milligrams. The coun-

selors emphasized the importance of exercise and the danger of breathing cigarette smoke.

Parents of another 522 children received the health education routinely provided in Finnish baby clinics, which does not recommend a lower-fat diet.

The percentage of calories from fat did not differ in the two groups. However, the group of parents that received special counseling fed their babies less saturated fat and more polyunsaturated fat than the other parents, food diaries reveal. Concentrations of high-density lipoprotein, the so-called good cholesterol, remained unchanged in both groups.

The Finnish team notes that in a 1990 study, even babies' arteries showed signs of early atherosclerosis. Furthermore, people will more likely adhere to a healthful diet if exposed to it "at the earliest possible age." — *T. Adler*

Virus may trigger some mood disorders

A virus known to cause behavior disruptions and neurological disease in several animal species may also infect humans, scientists now report. In people, the virus may help elicit some cases of major depression and other severe mood disorders.

The alleged culprit, Borna disease virus (BDV), was first reported more than 100 years ago to cause a neurological disease of horses in Borna, Germany. Since then, outbreaks of the same viral disease have been documented in sheep, cattle, and cats.

"The presence of [BDV] markers seems to coincide with acute episodes of mood disorders," write Liv Bode, a virologist at the Robert Koch Institute in Berlin, and her colleagues in the March NATURE MEDICINE. "The markers disappear during recovery or at least during a significant decrease of symptoms, thus pointing to a new human virus infection possibly threatening mental health."

Rats injected with BDV suffer damage to brain cells in the limbic system, a set of structures that in humans is implicated in mood disorders. In previous work inspired by these findings, the German team found a higher concentration of antibodies specific to BDV in blood samples from patients hospitalized for major depression or related disorders than in blood from healthy people.

In addition, Bode's group reported, antibodies that spark the release of BDV antigens appear more often in the blood cells of people with mood disorders.

In their new report, the German investigators cite evidence of BDV genetic material in the blood cells of four patients hospitalized for major depression, organic mood disorder, or obsessive-compulsive disorder. BDV antigens had already been identified in these individuals during 6 weeks of hospitalization.

About 5 percent of the BDV genome isolated from each participant's blood was compared to the corresponding chemical sequences of BDV genetic material taken originally from infected horses and maintained in human cells. The analysis yielded nearly perfect genetic matches.

In the two patients with chronic disorders, BDV-specific antigens and genetic material appeared both in an initial test and at a follow-up 7 1/2 months later. The other two patients, hospitalized shortly after becoming ill, were tested on several occasions and displayed both of these molecular markers only when their psychiatric symptoms flared up.

Neither of these molecular markers for the virus appeared in two additional patients, one diagnosed with depression and the other with panic disorder, who had been hospitalized for only 1 to 2 weeks. Several weeks later, however, BDV antigens showed up in both individuals, the researchers point out.

More work is needed to isolate the offending virus itself in people with depression and other psychiatric disorders, Bode's group adds. — *B. Bower*