Fat in Today's Food Supply—Level of Use and Sources

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ABSTRACT

Nutrient fat—food fats and oils, as well as fat from meat, milk, and other fat containing foods—in the U.S. food supply has increased ca. one-fourth over the past 60 years or so on a per person/day basis. Ca. two-fifths of the fat currently comes from fats and oils, including butter; over a third comes from meat (including fat pork cuts), poultry, and fish; and ca. one-eighth comes from dairy products. This large increase in nutrient fat is due mainly to the use of more vegetable fats—margarine, shortening, and salad and cooking oils. The per capita amount provided by animal fats actually has decreased, because the large decreases in consumption of butter and lard are only partly offset by increases in fat associated with greater consumption of meats. Despite the decrease in consumption of animal fats, they continue to provide ca. one-fourth of the total calories. Although the proportion of calories from vegetable fats has increased, animal products still account for the largest share of the calories provided by fat. Shifts in sources of fat and the increased amount of fat have changed the fatty acid content of the food supply.

INTRODUCTION

Man's diet has contained fatty substances since earliest times, whether he gathered seeds and other vegetable foods, hunted animals, or fished. As man's way of living changed, his diet changed as well, so that the kinds and amounts of fats he now consumes are quite different from those of earlier years. Use of national food supply statistics allows us to examine the U.S. diet since the beginning of this century to show how changes in food consumption have resulted in changes in the level and sources of fat in our diet (1). To estimate the fat content of the U.S. diet, appropriate food composition values are applied to quantities of foods available/person based upon amounts of food that disappear into civilian channels. These amounts represent food used up in an economic sense. Although not a measure of the amount of fat actually ingested, such estimates are useful for showing trends in overall patterns of consumption.

LEVEL OF FAT

Nutrient fat—food fats and oils, as well as fat from meat, milk, and other fat containing foods—in the U.S. diet has increased ca. one-fourth over ca. 60 years (Fig. 1). Early in
the century, 125 g fat was available/person/day; now the level is 156 g, an increase of ca. 30 g. This increased amount of fat is roughly equivalent to the fat provided by 2-1/2 tablespoons of butter or regular margarine or by a little more than 2 tablespoons of vegetable oil. On a yearly basis, this increase in nutrient fat is equal to ca. 24 lb/person.

Figure 1 shows that nutrient fat climbed upward in the 1920s, dropped in the depression years of the mid-1930s, but soon climbed to a higher level by the 1940s, a level which was maintained into the early 1960s. Since the early 1960s there has been a steady upward trend to still higher levels. A closer look at the years that it has taken for the 30 g increase in nutrient fat to occur shows that the first 10 g increase spanned roughly 15 years (Fig. 2) and that the second 10 g increase took more than 2 times as long, or 35-40 years. The last 10 g increase, however, took place within 7 years, revealing the recent acceleration in the level of fat in the U.S. diet.

The same foods did not always account for the increase in fat throughout the 60 year period, but, for most years, salad and cooking oils were the chief contributors. Following salad and cooking oils, dairy products and shortening shared ca. equally in the contribution to the gain in nutrient fat during the first 15 years and margarine, shortening, and meat, in that order, during the next 40 years. However, in the last 7 years, meat provided the largest increase in fat, followed by salad and cooking oils, and then by shortening.

**Sources of Fat**

Other changes have occurred in the food sources of fat (Table 1). At the turn of the century, meat, poultry, and fish as a group were the leading sources, providing almost two-fifths of the total amount. Butter and lard, including small amounts of edible beef fat, accounted for more than one-fourth, and dairy products provided one-seventh of the total. Other fats and oils, including salad and cooking oils, accounted for one-tenth. The remaining one-tenth came from other foods. However, over the 60 years, there has been a complete reversal in the share provided by some sources. Such is the case with butter and lard and with other fats and oils which today contribute one-tenth and over one-fourth of the total, respectively, the reverse of their earlier contributions.

**Vegetable and Animal Fats**

As a result of these changes in food sources of fat, an increasingly large proportion of the nutrient fat is coming from vegetable sources, as shown in Figure 3. Vegetable sources now account for proportionately more than twice as much fat as they did in 1909-13, when they provided ca. one-sixth of the total amount, or ca. 20 g/person/day. Today they account for nearly 60 g. Consumption of vegetable fats has risen with the shift from lard to shortening and from butter to margarine. Also contributing to this rise, as already indicated, has been the sharp increase in use of salad and cooking oils.

Use of animal fats has not paralleled the rise in use of vegetable fat. From the early 1900s until the late 1940s, the level of use remained ca. the same, except for a drop in the late 1930s during the depression years when meat consumption was down. From the late 1940s until the mid-1960s, use of animal fats declined, reflecting decreased use of butter and lard. Since 1965, the decline in fat from these products has been more than offset by an increase in fat associated with greater consumption of meat and some dairy items. The current level is similar to the level reported for 1965, ca. 95 g/person/day.

Although the large increase of nutrient fat in the U.S. diet is due chiefly to use of more vegetable fats, animal fats continue to provide the largest share.

**Sources of Fat by Food Groups**

Three groups of foods—fats and oils; meat, poultry, and fish; and dairy products—account for 90% nutrient fat in the U.S. diet. Of the three, the fats and oils group is the largest contributor, supplying two-fifths of the total amount.

Fats and oils group: Foods comprising the fats and oils group and the share they provide of the nutrient fat supplied by the group are shown for different time periods in Figure 4. In the early 1900s, these foods supplied 46 g nutrient fat/person/day; now they provide 65 g, ca. a 40% increase.

Lard and butter were the major sources of fat in this food group 60 years ago, each furnishing ca. a third or more of the total amount. Shortening, providing ca. one-fourth