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Olestra — Fat Substitute Approved by FDA in January 1996

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On January 24, 1996, after $200 million and 25 years of study by Procter & Gamble, the Food and Drug Administration (FDA) approved another fat substitute called Olestra. At this time, the product is approved for use only in snack foods such as potato, corn and tortilla chips, and crackers. The company plans to use the fat substitute under the trade name Olean.

Chemically, Olestra is formed by bonding sucrose (table sugar) and six to eight fatty acid molecules together. The resulting combination has properties such as taste, texture, and the ability to withstand high cooking temperatures similar to those of a naturally occurring fat. Unlike naturally occurring fat, Olestra provides no calories because it passes through the digestive tract but is not absorbed into the body.

Some consumers and health organizations have raised concern about Olestra because of potential side effects. Olestra can cause abdominal cramping, bloating, flatulence, and loose stools. However, with typical consumption patterns, most people will experience no adverse gastrointestinal effects.

Olestra also prevents the absorption of the fat-soluble vitamins A, D, E and K. The FDA has determined the impact on carotenoids, which are precursors to vitamin A, is not likely to be significant. To address this problem, the manufacturer is adding enough of the fat-soluble vitamins back into olestra-based foods to make up for the losses.

As a food additive, Olestra falls under the federal Food, Drug and Cosmetic Act of 1938 and the food additives amendment of 1958. According to these laws, a food additive can be approved if it carries a reasonable certainty of no harm when used as intended. Since the food manufacturer has corrected the nutrient-blocking effect by fortifying snack foods and the gastrointestinal problems were not deemed to be significant, the product has been approved. The FDA is requiring all snacks containing Olestra to carry the following statements as a part of the nutrition label:

This product contains Olestra. Olestra may cause abdominal cramping and loose stools. Olestra inhibits the absorption of some vitamins and other nutrients. Vitamins A, D, E and K have been added.

Natural fats do have many roles in the diet, but too much fat can be harmful. Nearly a third of all Americans are obese. The combination of high fat diets, extra weight, and too little exercise has been linked to heart disease, high blood pressure, diabetes and several types of cancer. For these reasons, many Americans are trying to reduce their fat intake and are doing so by consuming more of the reduced-fat products on the market.

The benefits claimed for Olestra are taste retention combined with fat reduction. The overall impression is that it can help people lose weight. Since Olestra has been approved for use in commercial snack foods only, it may not have much effect on the national waistline and health if people eat more chips and other high-fat foods to compensate for lost calories. Olestra is not available to consumers as an ingredient to be used in their own food preparation.

On-going studies are still being conducted with Olestra to determine any unknown consequences of its use. Regardless of the potential benefits of using this new fat replacer, it will still pay to watch total fat intake, eat a variety of foods from all food groups, and eat in moderation for your best bet for weight management and a lifetime of good health.

Reference

The American Dietetic Association. Position of The American Dietetic Association: Fat Replacements. J Am Diet Assoc 91:1285-88, 1991.

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