

## MEDICINE

## Appendicitis Deaths or Laxative Slaughters

**T**OO MANY persons are dying of appendicitis, in spite of campaigns to reduce this mortality and in spite of a quite recent downward trend in the mortality. This opinion, held by many authorities, is reaffirmed in a statement from the New York State Department of Health.

Appendicitis ought to be, as Dr. Reginald Fitz of Boston points out, "a disease easily diagnosed, of no great danger, and when recognized early and submitted to proper treatment, readily amenable to cure."

Improper use of laxatives and delay in removing the inflamed appendix seem to be the chief factors that keep the appendicitis death rate up. On the laxative subject, Dr. J. O. Bower of Philadelphia is authority for the statement that between 1918 and 1935 "248,000 . . . have been literally slaughtered with laxatives."

Dr. Fitz cited figures from Peter Bent Brigham Hospital in Boston showing that of 65 patients who died of appendicitis, 74 per cent. had taken some sort of

cathartic before entering the hospital, whereas of 100 patients who recovered, only 51 per cent. had taken a laxative.

The same cases also showed the effect of delay in having the appendix removed. None of the patients who died was operated on within 12 hours and only 11 per cent. within 24 hours of the onset of acute abdominal pain or belly-ache. Of the patients who recovered, 8 per cent. were operated on within 12 hours and 25 per cent. within 48 hours of the onset of pain.

If the abdominal pain or belly-ache lasts over four hours it is probably serious. Authoritative advice in such cases is: Call a doctor, do not eat or drink, do not take laxatives or cathartics.

Sometimes appendicitis follows a blow on the abdomen. Doctors are not agreed whether in such cases the blow was the sole cause or whether it precipitated an attack in a previously inflamed appendix. The important point is that such cases of appendicitis are unusually severe and demand immediate surgical attention.

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## PHYSIOLOGY

## Fats Give More Energy, Greater "Staying" Quality

**M**OST persons do not need to be told to eat fat. They like the flavor and they have probably learned from experience that a meal with fat in it has more "staying" power than a meal without. So, more or less automatically, butter is spread on bread, oil is put in salad dressings, cream goes in coffee and bacon is eaten with eggs.

The scientific reasons for eating fat and some of the newer knowledge about fat are less well-known but interesting. For example, the reason why you feel hungry sooner after eating a meal with little fat than after a meal with lots of fat is because fat leaves the stomach more slowly than protein foods or starches and sugars. Moreover, fat eaten with these other kinds of foods—bread and butter or bacon and eggs—retards the digestion of the other food substances.

### More Fuel Elements

Besides adding to the feeling of satisfaction after a meal, fat is the best of all foods for giving energy. Weight for weight, the fats give more energy than either proteins, such as meat, or carbohydrates, such as bread, cereal and potatoes. The reason for this is that fats contain a higher proportion of carbon and hydrogen, they are relatively drier than the carbohydrates and proteins as ordinarily eaten, and fats are more completely digestible than the other classes of foods so that there is almost no waste.

You can get along with very little fat. An experiment has been reported in which a man lived for six months on a diet containing only two grams of fat per day. Two grams is equivalent to about seven-hundredths of an ounce—a mighty small speck of butter. Surprisingly, this man felt no fatigue. The rest of his diet, however, was very carefully planned. An ordinary fat-lacking diet, such as was eaten in European countries during the World War, results in premature hunger, lowered energy and reduced capacity to work.

The average adult should eat about one-third of his daily calories as fat. Margarines or processed vegetable fats give better value for the money than butter, but ordinarily lack the vitamins A and D which butter supplies.

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America got its house mice originally from Spain.

## CHEMISTRY

## Accidents Have Played Part in Discoveries

**W**HILE there is no substitute for clear thinking, impartial observation and clever experimentation in scientific and technical research there is an element of good fortune which, at times, must receive credit for great discoveries.

Goodyear's classic accident of dropping rubber and sulfur on a hot stove and thus discovering the process of vulcanization is well known, of course. Not so well known, but equally important, was the accident that happened at the pioneer rayon plant of Count Chardonnet.

This French founder of the modern rayon industry produced rayon by dissolving nitro-cotton in ether-alcohol and pressing this viscous mass out through capillary tubes into water where it coagulated into filaments. One day the water supply failed and before workmen could stop the equipment the viscous

material came out into dry air. Surprisingly, the results were better than before and the whole method of dry spinning, as it is called, came into being.

By accident too was discovered the so-called flints of cigarette lighters, consisting of cerium-iron alloy. The Austrian scientist Auer von Welsbach had found that when thorium oxide was heated it glowed brightly, a discovery which led to the creation of the Welsbach gas mantle. Actually Welsbach found that 99 per cent. thorium oxide and one per cent. cerium oxide gave best results.

The thorium was obtained from monazite sand. In the extraction process cerium residue remained. Seeking to refine the cerium, Welsbach deposited it on iron by electrolysis. While attempting to clean these iron cathodes with his knife Welsbach created brilliant sparks.

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