# A Su Salud To your health



#### **CSI:** Nutrition

The following drama has a complicated story line, unexpected plot twists and promising leads that end up going nowhere .

**THE CRIME:** The growing waistlines of an ever-growing number of Americans. Over the last 30 years, adult obesity rates have doubled. **THE VICTIMS:** The two-thirds of Ameri-

cans who, according to the National Institutes

of Health, are either overweight (1%-10% above their ideal weight in relation to height) or who are obese (20% or greater above their ideal weight in relation to height).

## THE MAIN SUSPECTS AND THE EVIDENCE AGAINST EACH:

Fat – The prime suspect of the 1980's and 90's. Fat has 9 calories per gram, making it twice as caloric as either carbohydrates or protein (they both have 4 calories per gram). In addition to having more calories, fat, especially saturated fat, contributes to high cholesterol. Cholesterol can accumulate in the inner walls of the arteries and is a major contributor to heart disease, the #1 killer of Americans. Diets high in fat are blamed for other diseases, too, including certain cancers. Carbohydrates - Today's prime suspect. Carbohydrates are the body's major source of energy. All sugars and starches are carbohydrates. Sugars are considered *simple* carbohydrates while starches are *complex* carbohydrates. The terms, *simple* and complex, refer to the molecular make-up of the carbohydrates. Sugars are simple chains of glucose molecules, whereas starches are complex glucose chains. Fiber is a type of carbohydrate, too. It is the indigestible part of all fruits, vegetables and grains and plays a role in a healthy diet. All or most of the fiber, along with important vitamins and minerals, are removed from foods that are highly processed. Sweets like cookies, cakes, candy and donuts and starches like crackers, bread and pasta made from processed (not whole grain) flour are often referred to as having "empty" calories because they add calories but little nutritional value to the diet.

**The food industry** – The food industry, including the fast-food industry, would probably say that they are innocent because they simply respond to consumers' desires. Consider all of the fat-free cookies, cakes and cheeses and other foods they started making in response to the fat-free craze of the 80's and 90's. Consider the low-carbohydrate foods that are all the rage today (in addition to the fat-free foods still on the shelves). On the other hand, if the food industry was simply responding to



consumer desire, why would they need to spend billions of dollars each year on advertising and marketing their new products? Perhaps the food industry *creates*, rather than *responds to* consumer desire. According to the National Institutes of

Health, Americans' caloric intake has increased fairly steadily over the last 30 years with the exception of two big surges occurring from 1976-1980 and then again from 1988-1994. These two time periods coincided with national fast food chains increasing their portions. Serving sizes became 2 to 5 times larger during those years. Once larger portions were established (in other words, super- sized portions became the new 'normal'), cookbooks followed suit and increased portion sizes in recipes.

**The consumer** – On the one hand, we have only ourselves to blame for what we put in our mouths. After all, we have free will and nobody is forcing us to eat. On the other hand, who can resist the constant seduction by the many enticing advertisements, the great all-you-can-eat

deals, and the appetizing smells wafting from every mall, parking lot and even airport? Because our human instinct is to avoid discomfort, can we be blamed



for not wanting to make changes to our lifestyles, even when we know those changes will benefit us in the long run? And how can we do the right thing when we are constantly barraged with misinformation? For example, in the 1980's, when nutritionists and other researchers urged us to reduce the fat in our diets, food manufacturers started creating low-fat or fatfree versions of their products. Most consumers appreciated these lower-fat versions of their favorite snack foods because eating a low-fat snack in front of the television, for example, was a far easier change to make than either cutting down on snacking or reducing the amount of time we spend being sedentary. A seemingly extra-added benefit to the no- or lowfat snacks was that consumers could eat more of their favorite snack because it was fat-free. If someone used to eat 5 regular cookies, he or she might eat 10 fat-free cookies or even the whole box. Shouldn't the food industry have told us that fatfree foods still have calories and those calories are mainly made of simple carbohydrates?

#### **RESULTS OF INVESTIGATION:**

Unfortunately, the investigation in ongoing and we may never get to the bottom of it.

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### Waiter, There's a Fly in My Soup!



Two weeks ago, I had a gastrointestinal illness. While the symptoms lasted about 24 hours, I felt weak and yucky for a full 48 hours. Was it caused by something I ate? If so, what did I eat and when did I eat it? As you can see from the following

list, there are many different types of bacteria that cause foodborne illnesses and symptoms can appear from a few hours to a week or more.

The most prevalent foodborne pathogens that cause foodborne illness are listed below. This information comes from the FDA's Center for Food Safety & Applied Nutrition.

#### Campylobacter jejuni

FOUND: Intestinal tracts of animals and birds, raw milk, untreated water, and sewage sludge.

TRANSMISSION: Contaminated water, raw milk, and raw or under-cooked meat, poultry, or shellfish.

SYMPTOMS: Fever, headache and muscle pain followed by diarrhea (sometimes bloody), abdominal pain and nausea that appear 2 to 5 days after eating; may last 7 to 10 days.

#### Clostridium botulinum

FOUND: Widely distributed in nature; soil, water, on plants, and intestinal tracts of animals and fish. Grows only in little or no oxygen.

TRANSMISSION: Bacteria produce a toxin that causes illness. Improperly canned foods, garlic in oil, vacuum-packed and tightly wrapped food.

SYMPTOMS: Toxin affects the nervous system. Symptoms usually appear 18 to 36 hours, but can sometimes appear as few as 4 hours or as many as 8 days after eating; double vision, droopy eyelids, trouble speaking and swallowing, and difficulty breathing. Fatal in 3 to 10 days if not treated.

#### Clostridium perfringens

FOUND: Soil, dust, sewage, and intestinal tracts of animals and humans. Grows only in little or no oxygen.

TRANSMISSION: Called "the cafeteria germ" because many outbreaks result from food left for long periods in steam tables or at room temperature. Bacteria destroyed by cooking, but some toxinproducing spores may survive.

SYMPTOMS: Diarrhea and gas pains may appear 8 to 24 hours after eating; usually last about 1 day, but less severe symptoms may persist for 1 to 2 weeks.

#### Escherichia coli 0157:H7

FOUND: Intestinal tracts of some mammals, raw milk, unchlorinated water; one of several strains of *E. coli* than can cause human illness.

TRANSMISSION: Contaminated water, raw milk, raw or rare ground beef, unpasteurized apple juice or cider, uncooked fruits and vegetables; person-to-person.

SYMPTOMS: Diarrhea or bloody diarrhea, abdominal cramps, nausea, and malaise; can begin 2 to 5 days after food is eaten, lasting about 8 days. Some, especially the very young, have developed Hemolytic Uremic Syndrome (HUS) that causes acute kidney failure. A similar illness, thrombotic thrombocytopenic purpura (TTP), may occur in older adults.

#### Listeria monocytogenes

FOUND: Intestinal tracts of humans and animals, milk, soil, leaf vegetables, and processed foods; can grow slowly at refrigerator temperatures.

TRANSMISSION: Soft cheese, raw milk, improperly processed ice cream, raw leafy vegetables, meat, and poultry. Illness caused by bacteria which do not produce toxin.

SYMPTOMS: Fever, chills, headache, backache, sometimes abdominal pain and diarrhea; 12 hours to 3 weeks; may later develop more serious illness in at-risk patients (meningitis or spontaneous abortion in pregnant women); sometimes just fatigue.

#### Salmonella (over 2300 types)

FOUND: Intestinal tract and feces of animals; *Salmonella enteritidis* in raw shell eggs.

TRANSMISSION: Raw or undercooked eggs, poultry, and meat; raw milk and dairy products; seafood and food handlers. SYMPTOMS: Stomach pain, diarrhea, nausea, chills, fever, and headache usually appear 8 to 72 hours after eating; may last 1 to 2 days.

#### Shigella (over 30 types)

FOUND: Human intestinal tract; rarely found in other animals. TRANSMISSION: Person-to-person by fecal-oral route; fecal contamination of food and water. Most outbreaks result from food, especially salads, prepared and handled by workers using poor personal hygiene.

SYMPTOMS: Disease referred to as "shigellosis" or bacillary dysentery. Diarrhea containing blood and mucus, fever, abdominal cramps, chills, and vomiting; 12 to 50 hours from ingestion of bacteria; can last a few days to 2 weeks.

#### Staphylococcus aureus

FOUND: On humans (skin, infected cuts, pimples, noses, and throats).

TRANSMISSION: People to food through improper food handling. Multiply rapidly at room temperature to produce a toxin that causes illness.

SYMPTOMS: Severe nausea, abdominal cramps, vomiting, and diarrhea occur 1 to 6 hours after eating; recovery within 2 to 3 days - longer if severe dehydration occurs.

#### De Anza College Health Services

is available to all registered De Anza students. Some of our services include:

Health education/TB skin tests/First Aid/Blood pressure checks/Condoms/lubricants/Over-the-counter medicine/ Pregnancy tests/Family planning

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