

Compiled by students in Biology 18-Nutrition/Disease, Canada

## FOOD ADDITIVES

Most foods consumed by the American public contain food additives. Several thousand different substances are intentionally added to our foods. Those include fortifying foods with vitamins & minerals, using flavor enhancers, food colorings (95% used are synthetic coal tar dyes), stabilizers, emulsifiers, & preservatives. Many food additives provide benefits to consumers, but most food additives have not been

adequately tested.

One of the food additives that may be most hazardous is sodium nitrite. It is potentially dangerous because it can lead to the formation of cancer-causing chemicals. However, it is a valuable additive because it prevents the growth of botulism. Sodium nitrite is added to all cured meats such as bacon, ham & smoked fish; & to luncheon meats, hot dogs, & salami. There is much concern about young children having large & daily intakes of sodium nitrite.

Coal Tar dyes are complex synthetic compounds that are not found anywhere else in nature. Many of these artificial food colorings are potent carcinogenic (cancer producing), that have been approved for use & then banned after being shown to be toxic. Dr. Ben Finegold, a S.F. allergist, believes hyperactivity in children is a result of an allergic type reaction to artificial food colorings & artificial flavorings. Here are some steps that you can take for your better well being:

1) Avoid repeated & daily use of suspected food additives.

a) Especially sodium nitrite for children.

b) Highly colored foods, i.e. maraschino cherries.
c) Pre-prepared foods, i.e. TV dinners.
d) Highly refined foods, i.e. store-bought white bread.

2) Grow your own vegetable & fruit garden. (highest vitamin content of food is immediately after picking).

3) Make your own breads, applesauce, mayonnaise, & peanut butter.

Remember you know what you put into the foods you prepare.

YOURSELF A FAVOR-DO IT YOURSELF!

Pretty red maraschino cherry makes a birthday cake merry, Stillbesteral can make right the happenings from last nite, Sodium nitrite makes my hot dog pink & yummy, But they could cause cancer in my tummy.

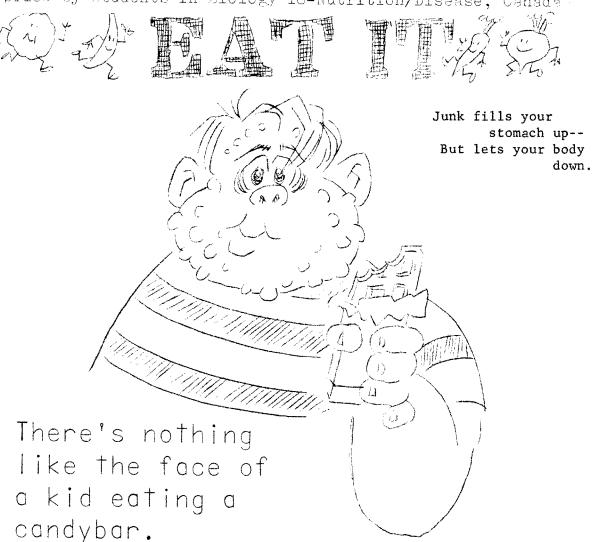
Mayonnaise 1 Whole Egg, 1T Vinegar, 3/4t Salt, ½t Dry Mustard, Dash of Paprika. Turn blender on med. Very slowly add 10 Safflower Oil thru opening on top. Add another 1T Vinegar & then repeat with another 2C Oil.Adjust speeds & stop for side scrapping when necessary. Store in air-tight plastic container in refrigerator. Delicious & keeps well.

Tasty Multi-Flour Bread Mix together in bowl: 2 Pkg. Dry Yeast, 1C All Purpose Flour, 12C Whole Wheat Flour, 2C Rye Flour. Heat: 2C Reconstituted Non Fat Dry Milk, 3T Safflower Margerine, 1/3C Packed Brown Sugar, 2T Sugar, 2t Salt.Add milk mixture to dry mixture, beating 3 min. on high speed of electric mixer. Add about 2C All Purpose Flour, turn out on floured board & knead, adding additional flour as needed, 8-10 min. until smooth & elastic.Let rise  $1\frac{1}{2}$  hrs.Punch down & let rest 15 min.Shape into 2 loaves or 1 loaf & 12 large dinner rolls. Let rise about 1 hr. Bake @ 375° for about 40 min.

RECOMMENDED READING: The Consumers Factbook on Food Additives; Michael Jacobson, Doubleday Anchor Books. COAL 500IUM 150N TAR

edition number two, April 24, 1975

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The Dangers OF EUGAR

"I sometimes wonder whether the insistance that sugar contains energy arises from the fact that it contains nothing else". That comes from Dr. Yudkin, author of the and Dangerous. He believes there is no physical need for refined sugar in any form. It is amazing that, as of 1972, the average annual U.S. consumption of sugar was 102 pounds per person (approximately 2 pounds/week).

The "snowball" starts with babies being introduced to sugar in their formulas and baby foods. Intake increases with snacks and treats until the result is sugar freaks in the teen years. The highest consumption of refined sugar is during the teen years. Just when the body is trying to establish balance of growth and hormones, it is thrown a dangarous curve, a high intake of sugar. Sugar can contribute to obesity, diabetes, heart disease, tooth decay and chronic and severe indecestion.

some popular sugar foods are: sugar coated cereals, baby formulas, candies, cakes, coo ies, and sodas. Next time you crave something sweet, do your body a favor by eating natural sugars in foods that give more than empty calories and probable disease- ie. fresh or dried fruits, raw vegetables, cheese squares, or hard boiled eggs.

BCN AFFATITE!

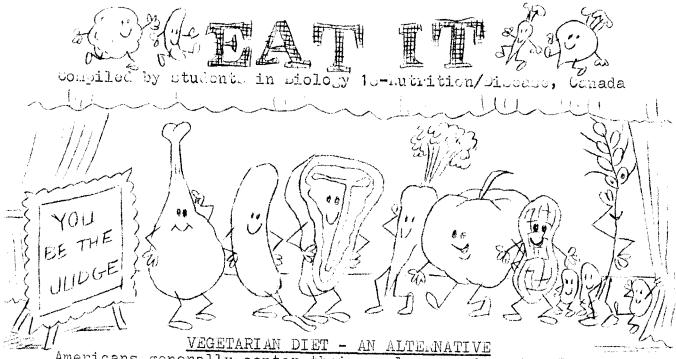
Fresh Fruit Milk Shake 1/2 C Non-Fat Milk

2 C Fresh Fruit (Stromberries, peaches, pincapple, bananas) 1 t Vanilla Extract 8 to 12 Ice Cubes blend first 3 ingredients in blender. Add ice cubes one at a time till desired thickness is reached \*\*\*\*\*\*

A candybar and a coke You may think are delicious, But milk and an orange Are much more nutritious.

edition number three, May 1, 1975

oift Together: Cranberry Nut Loaf whole-wheat flour ½ t each soda and salt 1½t baking powder Beat Together: 1 well beaten esg 2T vecetable o 1 %C orange juice 2t hot water Slowly add dry incredients to egg mixture, beating constantly. Add to Batter: %C chopped walnuts, 1C chopped cranberries. Bake at 325 for 1 hour and 10 minutes. Brush with melted butter(or oloe) wrap in waxed paper while still hot and refrigerate for 3 hours. Remove paper, wrap in towel and return to refr gerator until ready." to eat. Makes one loaf.



Americans generally center their meals around meat. In recent years, since meat prices have jetted, many people have come to realize an alternative to the meat centered meals. Using plant protein and dean alternative to the meat centered meals. Using plant protein and depending less on meat can be educational, delicious, healthy and economical. However, to do this effectively, one must understand protein metabolism and how to combine in the proper quantities of the amino acids in non-meat foods to produce a high-grade protein equivalent to

or better than meat.

The body needs protein foods to supply the amino acids necessary to synthesize proteins for hair, skin, enzymes, hormones and blood. "Complete protein foods" (such as animal proteins) have all the essential amino acids in the proper ratio to support growth. "Partially complete protein foods" (grains, nuts, seeds, and legumes) have all the essential amino acids, but not in the proper ratio to support growth. Therefore, they are not utilized as well by the body. "Incomplete protein foods" (including fruits and vegetables) lack an essential amino acid.

To maintain efficient protein synthesis the body must ingest, in the proper ratio, all essential amino acids simultaneously. This can be accomplished by eating animal protein foods (complete protein foods), OR by combining different sources of plant protein foods so that essential amino acid deficiencies in one are complemented by the amino acids in the other food. For example, beans and wheat alone are each partially complete protein foods, but by combining them in the proper amounts the recipe can make the meal a complete high protein meal.

For better understanding of complementing protein, more facts on how to feed more people with less money and for some delicious recipe suggestions read:

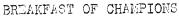
DIET FOR A SMALL PLANET, Lappe, F.M., and RECIPES FOR A SMALL PLANET, Ewald, E.B., Ballantine Book, N.Y. Bean Loaf with Tomato Sauce

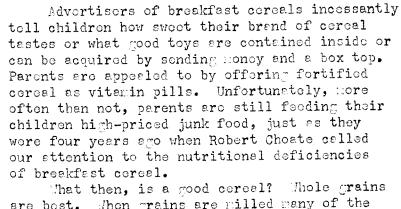
onion, chopped 12 cups dry beans, cooked & chopped (pinto, lima or garbonza) 1-2 carrots, grated 2 eggs tsp salt tsp summer savory, dried tbsp brewer's yeart cup sesame tahini or sesame butter Saute onions in oil. Combine all ingredients with onions. Oil loaf pan, add mixture, pat gently. Bake C 350°F for 1 hour. During last ten mins., pour over sauce.

Sauce: 1½ tsp butter or margarine 12 tsp whole wheat flour せ cup milk 1 tbsp tomato paste tsp salt tsp oregano 2 tbsp grated parmesan cheese Melt butter in saucepan, stir in flour, cook over low heat 1 min. Stir in milk and cook until thick. Blend in remaining ingredients, heat. Pour over the loaf last ten min. of baking. \*\*\*\*\*\*\*\*\*\*\*

CHICKEN, PORK, BEEF AND LAMB HAVE ALWAYS SUPPLIED PROTEIN, BUT IF YOU FIND YOU'RE IN A JAM TRY GRAINS, NUTS, SEEDS AND BEANS

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When grains are milled many of the are best. nutrients are removed in the outer layers and the germ. Then refined grains are fortified, only some of the nutrients are added back. With the American diet becoming increasingly refined, these minor nutrients may be in critical supply. Nutritionists elso question whether highly refined diets provide enough fiber. This lack of fiber may be related to an increase in colon cancer and other intestional diseases. !holegrein cereels contain fiber - bran being the highest.

Hot cereal is nutritionally superior to cold cereal. When cold cereals are manufactured, they are subject to a lot of processing including hot, dry heat to make them crisp. This heat is more destructive to nutrients such as thismin and protein than moist heat used in home cooking. Also, nutritional value can be added by cooking the cereal in milk instead of water.

Fortification, if done at all, should be at moderate and uniform levels (about 25% of the USRDA). There are two problems with fortification. First, because of cost and difficulty in manufacturing, many trace elements contained naturally in whole grains are not added to refined cereals. Second, superfortified cereals with 100% of USRDA for vitamins (Maboom, Total, King Vitamin, Product 19) can provide too much of some vitamins, specifically vitamins A & D.

As explained in last weeks! edition, there is a lot of concern due to the suger content of cereels, especially at the levels of 30%-50% found in sugared cereal (Sugar Pops). Most hot cereals do not contain added sugar and neither do Shredded Theat, Puffed Rice, Puffed Theat and Grapenuts.

> 1%-10% in Corn Flakes, Wheat Chex, Rice Chex and Rice Crispies. 11%-20% in Life, Wheaties, Product 19, Raisin Bran and Bran Flakes.

21%-30% in Granolas (19%-22%) and Fortified Oat Flakes.

31%-50% in all sugared cereals. Most of them have 40%-50%. Content:

Co-op News, Dec. 30, 1974.

## WHAT IS THE USRDA?

Added

The Recommended Dietary Allowance is a table of suggested amounts of nutrients judged to be adequate for maintaining good health while living in the United States. It is divided into categories by age, sex, pregnancy and lactation. The allowances ere set high enough to cover individual variations of most people. The figures are revised every five years based on recent research findings by the National Research Council.

CAPTAIN

Breakfast of Fools

99% SUGAR

1% BHA-BHT

CREEP

The USRDA is the highest RDA value established for all nutrients (except calcium) for any age-sex category, except pregnency & lactation.

WHOLE GRAIN GRANOLA

1/4 C each - peanut but., veg. oil, & honey

2 2/3 T brown sugar 2 1/4 C old-feshioned oats, uncooked

1/2 C wheat germ

1/4 C instant nonfat dry milk

3/4 t. salt

3/4 C dry rossted peanuts

1/2 pkg. (6 oz) dry mixed fruit, snipped 1/2 pkg. (4 oz) dry pitted dates, snipped Combine first four ingreds., heat to simmer. Combine remaining ingreds., pour honey mixture over dry ingreds. Spoon mixture onto  $15\sqrt[4]{x}$  $10\frac{1}{2}$ xl" jelly roll pan. Bake in 300° oven for l hour., stirring every 20 min. Remove from oven & let cool. Store in cool, dry place in airtight container. To refreshen, heat in 3250 oven 30 min. & cool. Makes 6 cups.

edition number four, May 8, 1975

Over fortified & sugar-coated cereals aren't real, hot cereal or granola is a much better deal.