

FEEDING OURSELVES...



BERKELEY WOMEN'S
HEALTH COLLECTIVE



The Berkeley Women's Health Collective works at the Berkeley Free Clinic every Wednesday to provide free health care for our sisters and for children, the human kind of care that most of us don't get from established medicine. We also have a storefront. Here we talk with others in the community about how our bodies work and how we can keep them running right, make referrals, show films and slideshows, do abortion counseling and have rap groups. Women in the Collective also go door-to-door and to schools and conferences to talk with people about health problems.

The nutrition committee is one part of the Women's Health Collective. We've done nutritional counseling at our clinic and storefront and distributed information in the community. We've also given workshops about food. Two of us in the committee have done most of the work on this booklet, now in its third edition. We've been helped by feedback from a lot of good people who responded to what we said and suggested changes in the booklet, and also by printers, nutritionists and female artists. Many of the pictures were done by Linseed, a Berkeley collective of women artists.

A lot of times we think that health is made by doctors and hospitals and drugs, and we go to the "experts" to get our bodies in shape. We forget that the way we feel depends most on how we treat our bodies, not on penicillin and a diagnosis, and that the "experts" won't be able to help us much if we continually mistreat our bodies.

Good eating is one major thing that makes for good health, and when we are sick or taking drugs which destroy nutrients in the body, good eating will help us get well. Unfortunately, we are surrounded by foods that are high in calories, low in nutrients and often loaded with chemicals. Nobody warns us against these

foods and ads tempt us to eat them—and to overeat. Often, we are too rushed to eat proteins, vitamins and minerals and rely on candy bars, coffee and cigarettes. Or in the "counter-culture," we may manage to avoid some of these all-American food traps, but because we don't have much sound information on food, we fall into other traps, fasting or adopting diets that don't have all the nutrients. We hope that when people learn more about good eating, their diets and health will improve.

In the past months we've found that some good eating changes are easy, like switching from white rice or flour to brown rice and whole grain flours. Others are harder, like cutting down on or cutting out such American staples as sugar, t.v. dinners and produce covered with pesticides, or like having every able person in a household help with meals so that we can prepare more of our food from scratch, using nutritious ingredients. We've gone slowly and haven't set up steadfast rules for ourselves. Trying to change old habits overnight probably hurts more than it helps. But as we learn about food and see how we've been tricked by a food industry more bent on making money than making health, we desire the bad stuff less and enjoy eating what is both nutritious and delicious.

The nutrition committee would like to hear what you think about the booklet. If you would like more food information to get out to people, you can help by sending donations. Money would also support our clinic and storefront and other health work. The collective is non-profit and any donations are tax deductible. Our address is:

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The Food We Eat

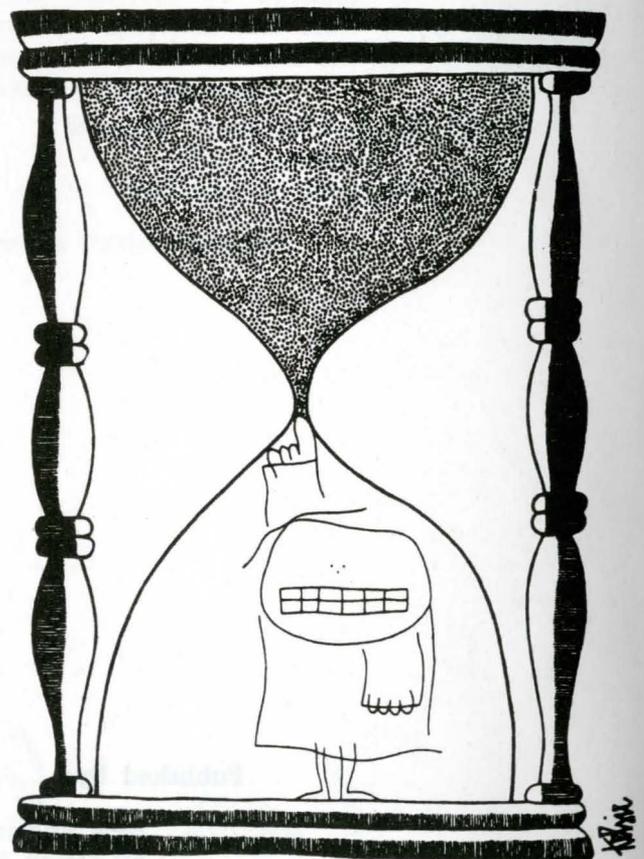
Americans are the best fed people on the earth, we are told. What we aren't told is that an estimated 30 million Americans are hungry and 10 million are actually starving (1968 Citizens Board of Inquiry into Hunger and Malnutrition). In 1969 only 18% of the poor received food stamps or surplus food. That doesn't help much. The U.S. could produce enough food for all its people, but it only produces food for those who can pay good prices for it. In fact, the government pays billions of dollars to keep land out of production (35 million acres in 1968) and destroys food, keeping the food supply low and the prices and profits high. That doesn't help the poor much either.

In a book called **Still Hungry in America** by Robert Coles, the poor talk about what it feels like to go hungry. Poor pregnant women don't have food and they or their babies often die during childbirth. The women cannot produce enough breast milk, and so their babies die in infancy or grow up damaged. Water is contaminated because of strip mining, and people buy soda pop to avoid it. They don't buy milk because it's hard to save up the money for a half gallon of it. One woman says, "I see the missus and what she eats and her family eats. They don't worry how much this costs and how much that costs. . . For us, though, it's different. I have to think every time I buy a loaf of bread. And I can't let my kids tell me they're hungry, they're hungry — because it drives me crazy hearing it, and I tell them to stop. . . I say we're all hungry. That's the way it's got to be." That's the way it shouldn't have to be.

The poor have it worst. But all of us have it bad. Each year 600 million pounds of chemical pesticides go into our soil and food. Every year we each eat an average of three pounds of chemical additives, chemicals they add to our food during processing. Our food is sprayed, waxed, dyed, stabilized for appearances' sake and preserved for a long shelf life. We put Pream in our coffee instead of cream. That means we're drinking: corn syrup solids, vegetable fat, sodium caseinate, dipotassium phosphate, mono and diglycerides, polysorbate 60, sodium silicoaluminate, artificial flavors and artificial color. Note that only the first three of these odd-sounding ingredients are products of real food. We eat fish caught weeks back instead of fresh fish, refined flours instead of whole grain ones, cold sugar-coated breakfast cereals and highly priced beef stroganoff dinners in a can. It's not surprising that national surveys show over 1/3 of us have nutritional deficiencies.

Supposedly, the Food and Drug Administration

(FDA) protects us from food growers and manufacturers. In fact, the FDA doesn't do us much good and sometimes it looks like this government agency is more interested in getting along with the \$125 billion food industry than with us. FDA heads say that they are underfunded and can't do much, and this is partly true. Because they didn't have the time and the personpower, for example, FDA checked less than 1% of produce for poisoning from pesticides in a three year period. But the other part of the story is that FDA doesn't want power. They claim that their job is to "educate" not "police" industry; this is like trying to educate the Mafia—it doesn't work well. Once, for example, FDA suggested 5,052 label changes so that boxes and cans would say more about the food inside—how much it weighed or what it was. Not one label was changed. Why should the taxpayers and consumers give more funds to an agency that refuses to fight for us? What's more, FDA people often go into highly paid industry jobs and industry people go into FDA jobs. FDA holds conferences for industry people, 40 of them



between 1965 and 1970, but not for consumers. This two-way traffic is very friendly, but what we need is people on top who are friendly to us, not to the food industry.

One of the most frightening examples of how the FDA doesn't and won't work for us is with chemical additives. FDA is supposed to decide what chemicals are "safe" to eat, and they have a list of "safe" chemicals that manufacturers can add to our food without even telling us that they are there—223 of them. And chemicals got on that list in the first place because we were already eating them, not because they were thoroughly checked. For the most part, **manufacturers**—not the FDA or any objective agency—test new chemicals not on that list to see if they'll hurt us. Unfortunately, we can't trust manufacturers to play fair. Because no really reliable testing is done on chemicals **before** we eat them, we're turned into the guinea pigs. **After** we ate cyclamates for twenty years, for example, they were banned. This is a terribly reckless way of finding out what is "safe." Besides all this, nobody knows what happens when we eat a variety of chemicals since they may have strange reactions when mixed together in our bodies. And nobody knows what happens when we eat chemicals in the quantity we're eating them. Many scientists and other people fear that these chemicals are contributing to cancer and heart and liver trouble, which are increasing in this country, and some fear tht they may even cause genetic changes that will affect our babies. It's not unlikely either that additives—and pesticides and smog—cause a lot of our headaches, flu, sniffles and general fatigue.

The bizarre thing about the increasing use of additives is that they almost never do us any good. (Of course, industry profits by using them.) They most often are there to make a food look more orange or fluffy or smooth or to fool us into thinking that a food without a blueberry in it is full of blueberries. The logical conclusion to the chemical game would be to eat chemicals instead of food.

Not only does the \$125 billion food industry have government agencies on their side, they also control the media. There is no such thing as freedom of the press. It has to be paid for, and only the big food industry lobbies, like the National Association of Food Chains and the Grocery Manufacturers of America, and the manufacturers can. Because magazines, newspapers and t.v. depend on corporations for most of their income, corporations can censor the news. During the "Truth in Packaging" hearings in Congress, much of the media blacked out publicity that was adverse to the food industry (after the Grocery Manufacturers told them to). They then chipped in \$200,000 to finance the Grocery Manufacturers' own more favorable report, which they publicized very well.

The food industry also supports a lot of nutritional research and many home economics departments in colleges. The result is that we are taught that refined white bread is some sort of magic super-food, which is far from the truth.

Our economic system works on the notion that competition will lead to high quality at low prices, but after we pay for ads and fancy boxes, it's not cheap any more. The new Mazola Salad Oil container cost us \$400,000. The total food packaging bill in 1968 was 31.9 billion dollars, three times the bill for welfare! In order to keep their prices down at all, manufacturers add water and blow bread up like balloons and substitute chemical flavor for real flavor. So we don't get cheap food and we don't get good food either.

Food industrialists claim they're not making big profits, but that's because they sink a lot of money back into expanding. Armour now makes meat, dairy and poultry products, soap, household waxes and cleansers, chemicals, adhesives, agriculture chemicals, heavy industrial equipment and pharmaceuticals. We've bought all that for them, along with our hotdogs.

This big business tendency is also happening down on the farm. The small family farm is disappearing, and the big landowner who sometimes owns a packaging plant and a storechain is replacing it. In California, for example, 3.8% of all farms comprise



68.8% of all the farmland. The big landowners then hire labor. These farmworkers are almost always underpaid, overworked and forced to work with dangerous pesticides. Some of the same conditions that existed in the factories in the 19th and early 20th centuries often exist today in agriculture: low wages, child labor, long hours, hazardous working conditions, no decent sanitary facilities and no benefits like paid vacation, social security, insurance, pension plans or retirement pay. According to an FDA official, 850 to 1000 deaths and 80,000 to 90,000 injuries to farmworker families are caused by pesticides every year. The United Farm Workers, who in the past few years have organized themselves and are gaining some of the advantages of other workers, show something about what can be done. But meanwhile, most small

farmers and farmworkers don't profit much from "agri-business," as it is called.

Unfortunately, what goes on with food in the U.S.: like what goes on with everything else in this country, isn't just our problem: it's a world problem. Everywhere people drink Coke. General Foods Corporation has 100 plants and installations in 17 countries, countries the U.S. will "keep secure" so General Foods can stay there. And in Vietnam American war-makers are destroying people and an ecology which can make food and support life. So the struggle for good food is a big one.

It begins at home, and we hope this booklet will help you get started. We also hope it will give you some ideas about where to go from here.

Digestion

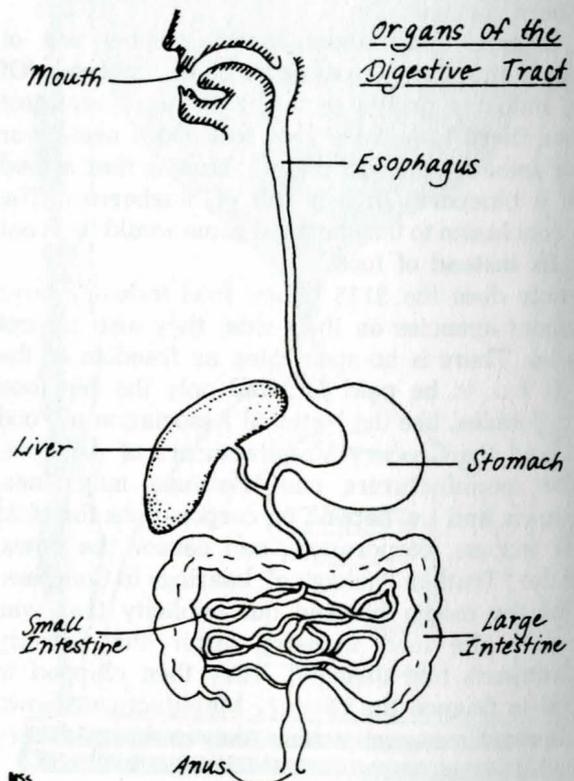
An amazing process changes a piece of bread into energy or an egg into muscle or other tissue. The first step is digestion, the process of breaking down large food molecules into molecules small enough for our body cells to absorb. Digestion begins in our mouth. We chew our food to break it into smaller pieces and saliva helps lubricate it to get it down our esophagus, a tube connecting our mouth to our stomach.

In the stomach food reaches body temperature and is mixed with water and two chemicals, hydrochloric acid and pepsin, which help break certain food molecules into smaller molecules. This partially digested liquid mixture passes to our small intestine in one half to four hours. There other chemicals break down more molecules.

The large molecules making up proteins and fats digest slowly because they must mix with several chemicals to become smaller. This is why proteins and fats give us a full feeling. Carbohydrates (foods with starch or sugar) take less time to digest than protein or fat because their molecules are smaller. And because sugar molecules are smaller than starch molecules, they digest most quickly. This is why we get quick energy from an orange or a candy bar. Minerals and water don't need to be digested since they are such small molecules to begin with. Different vitamins get digested at different rates, depending on whether they dissolve in fat or water.

Proteins digest into **amino acids**, which the body uses for growth and replacing old protein. Fats break

down into **fatty acids** and **glycerol**, which soon is changed into **glucose**. Fatty acids are possibly involved in growth and reproduction; they can also be used



directly as fuel for the body. Glucose is the essential fuel of the body and is a sugar with a very small molecule. All carbohydrates are changed into glucose during digestion. (Extra amino acids and fatty acids that the body does not use for functions like growth are made into glucose, too.)

After digestion, food is absorbed. Most of it passes through the walls of the small intestine and some through the walls of the stomach and large intestine (colon). The glucose from the fats and carbohydrates, the amino acids from the protein, the water, minerals

and vitamins then travel in our blood through our liver to the rest of our body. Some glucose stays in the liver until it is needed later as body fuel and some goes to the muscles and brain for immediate energy. The fatty acids travel primarily through the lymph system, not the blood system, to body cells.

The digested fats, carbohydrates and proteins we cannot use are changed into fat. Some parts of foods, such as the tough cellulose in celery or carrots, never get digested and pass from our bodies through the colon and rectum.

Protein

We are 18-20% protein. Our skin, hair, nails, cartilage, tendons, muscles and bones are made of protein. Children need protein for growth; adults need protein for building and replacing tissues. We also need protein for all the chemical reactions in our bodies, to help the body tissues maintain the right amount of water and to fight infections.

Proteins are made up of 22 amino acids, which are found in different amounts in many foods. Our bodies can make many of these amino acids, but we can't make eight of them. So in order for our bodies to build protein **we have to eat foods with good amounts of these eight amino acids.** Some foods have all eight of these amino acids in good amounts: milk and milk products like cheese or yogurt, eggs, meat, poultry and fish.

Other foods don't. But if we eat one food that has some amino acids with another that has the rest, we get good protein. Or if we eat a food that is short on one amino acid with a food that has an extra supply of it, we get good protein. For example, soybeans are low in one amino acid, methionine, and cornmeal has a surplus of it. When you put them together, you make inexpensive and high-quality protein; this is called "complementing protein." Some of the other possible combinations besides **cornmeal and beans** are **dried beans or peas** (like kidney, soy, garbanzo, lentils, split peas, etc.) **and rice; dried beans and seeds** (like sunflower or sesame); **dried beans and nuts; wheat products** (wheat germ, bulgar wheat, wheat berries, wheat germ) **and soy products** (soy flour, soy grits, soy beans, soy curd); **rice and soy products; rice and seeds; rice and brewer's yeast; or sunflower seeds and peanuts.** (The rice must be brown rice.) For the best effect, foods should be combined in specific amounts.

Some examples are below. The amounts referred to are uncooked amounts.

- 1 cup sunflower seeds to $\frac{3}{4}$ cup peanuts
- 1 cup whole wheat flour to $\frac{1}{4}$ cup soy flour
- 1 cup rice to $\frac{1}{3}$ cup sesame or sunflower seeds
- 1 cup rice to $\frac{1}{4}$ cup brewer's yeast
- $2\frac{1}{2}$ cup rice to $6\frac{1}{4}$ oz. soy curd
- $2\frac{1}{2}$ cup rice to $\frac{1}{4}$ cup soybeans or soy grits
- $2\frac{2}{3}$ cup rice to 1 cup dried beans or peas
- $\frac{1}{3}$ cup garbanzo beans to $\frac{1}{2}$ cup sesame seeds
- $\frac{1}{4}$ cup dried beans to 1 cup cornmeal

So cook soy grits and rice together; put sunflower seeds in the salad and peanuts and beans in the vegetable casserole; eat muffins for dessert that have some soy and wheat flour in them.

You can also complement foods that do not have all eight amino acids in good proportion with those that do, and stretch your protein mileage. For example, if you eat one part turkey to four parts blackeye peas, you get just as much protein as if you were eating straight turkey because the turkey complements and improves the protein quality of the peas. So drink a glass of milk with your dinner of grains and seeds; put cheese on your taco; add a small amount of meat or fish to a hearty bean-vegetable soup; put powdered milk into the cake made with wheat and soy flours.

Eating this complemented protein is **much less** expensive than eating meat, fish, poultry and dairy products. It is also healthier because we avoid many antibiotics, chemicals, and pesticides that are present in most of the animal foods we purchase. Sex hormone pellets, called stilbesterol, are implanted in cows to fatten them, although stilbesterol has been linked to cancer. Some chickens are fed speed so they'll lay more eggs; others are bathed in tetracycline after

slaughtering to lengthen their shelf lives. Meat products, such as salami and bologna, are treated chemically with preservatives, curing agents, antioxidants, flavoring and coloring materials, and bleaching agents. Sodium nitrate and nitrite fix and accentuate the color of meat. Fish are harmed by wastes dumped into oceans by irresponsible corporations and by pesticides that get into the rivers.

Eating complemented protein is also more ecological. According to Lyle Schertz, an administrator in the U.S. Dept. of Agriculture, in the June 1971 issue of **War on Hunger**, ". . . the billion people in the developed countries use practically as much cereals as **feed** to produce protein as the two billion people of the developing countries use directly as **food**." We feed soybeans to cattle while people here and in other countries go hungry.

Recommended amounts of proteins are 25 grams a day for toddlers, 30 to 40 grams for kids, 50 to 60 grams for pre-adolescents and adolescents, 55 grams for

women, 65 for men, 65 for pregnant women, and 75 for women who are breastfeeding. These amounts allow for individual variations and you might need less if you are in very good health. In part you can judge when you're getting enough protein by how you feel, the condition of your nails, hair and skin and whether or not your wounds heal quickly. If anything is wrong, you may lack protein. Also, these amounts assume that you are not always getting the eight amino acids together. If you eat foods with all eight amino acids in them or if you combine foods to get all eight amino acids, you will need about one-quarter or one-third less protein than given in these amounts.

The chart below shows the protein in some common foods, and it will help you figure out your daily protein intake. For more information on possible ways to complement protein and for recipes showing good tasting ways to do it, see **Diet for a Small Planet** by Frances Moore Lappe. This is an excellent book which is out in an inexpensive paperback.



Food	Amounts Eaten	Grams of Protein
Egg	1 medium	6
Milk or Yogurt	1 cup	8
Cottage Cheese	½ cup	15-19
Natural Cheeses	1 oz. (1" cube)	4-7
Soybeans, cooked	½ cup	10
Kidney Beans, canned	½ cup	7
Lentils, cooked	½ cup	3
Peanuts or Peanut Butter	2 tbsp.	4
Brown Rice or Oatmeal	⅓ cup	2
Bread, Whole Wheat or Rye	1 slice	2
Sunflower Seeds	½ cup	12
Wheat Germ	2 tbsp.	2
Brewer's Yeast	1 tbsp.	3
Soybean Flour	1 cup	39
Whole Wheat Flour	1 cup	13
Tuna	3 oz.	25
Haddock	3 oz.	16
Chicken	3 oz.	22
Pork	3½ oz. (1 chop)	16
Steak or Hamburger	3 oz.	20



Energy

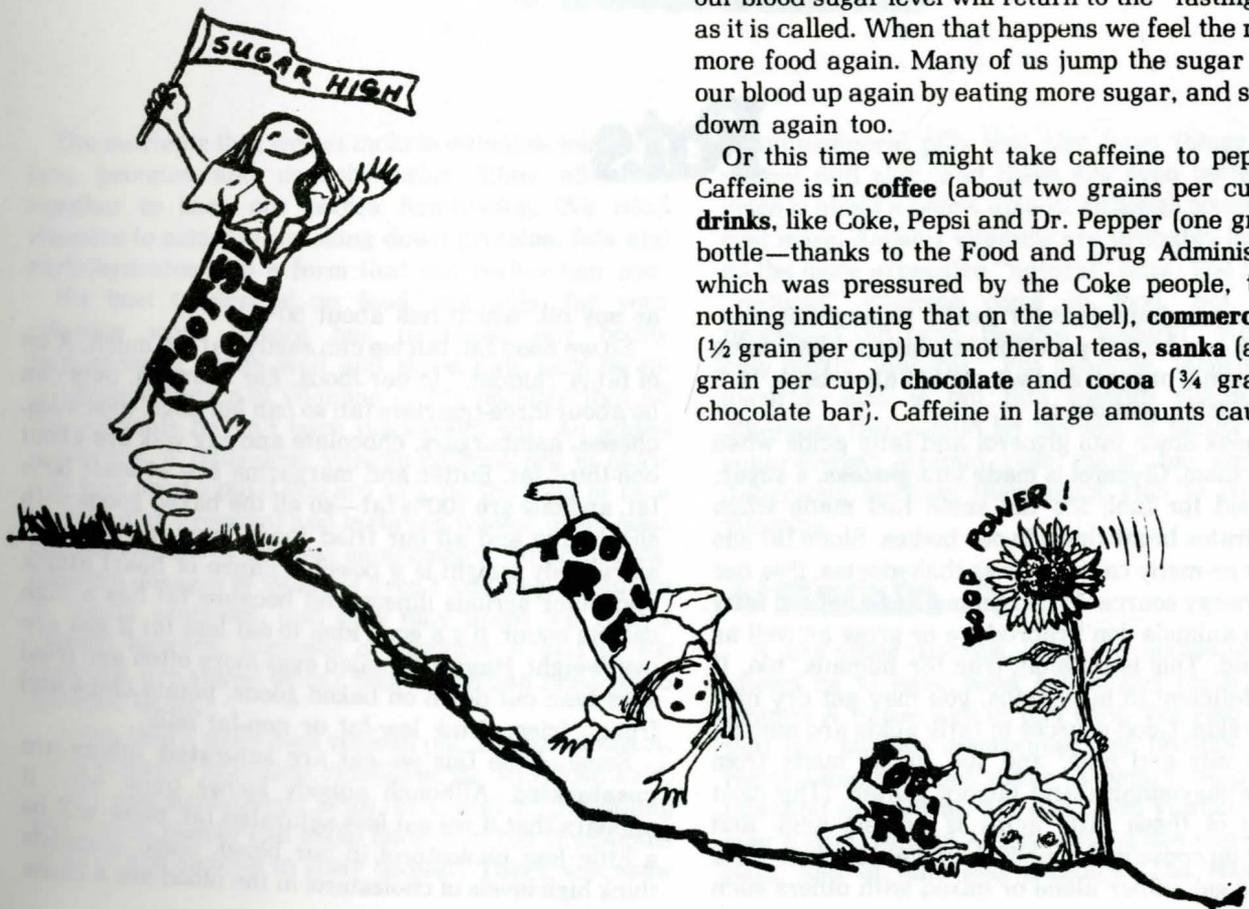
Carbohydrates and fats are used to supply our bodies with energy. Sometimes they are referred to as the "protein-savers" because if we didn't eat them, our bodies would have to use protein for energy. Since protein tends to be expensive and is best used for building and maintenance work in the body, it's economical to eat some carbohydrates and fats for energy food. Most of us, of course, get plenty of fats and carbohydrates, if not an excess.

When we eat **sugar** (in fruit, most vegetables, honey, table sugar and dairy products) and **starches** (in grains, seeds, and some vegetables like corn and potatoes), we are eating carbohydrate. The carbohydrates are changed to **glucose** when digested, a sugar the body uses for fuel. We eat fats in meats, poultry, fish, nuts, seeds, oils, eggs and other dairy products. Some fat is changed to glucose after digestion, to be used for fuel like the glucose from carbohydrate. Fat, though, has almost twice as many calories as carbohydrate does, so it supplies twice as much energy.

Glucose travels in the blood to all the cells. **Insulin** moves glucose from blood into the cells, and the more glucose there is in the blood, the more insulin the pancreas will produce. When there is extra glucose, it is stored in the muscles and in the liver as **glycogen**. Glycogen is a limited reserve tank of fuel—about 300 or 400 calories—that the body can quickly make into glucose again and deliver to the cells that need it. The rest of the glucose that our body doesn't need immediately is stored as **fat**. Unfortunately, stored fat is not easily reconverted to glucose. In fact, if we run out of glucose and out of glycogen, our stored sugar, the body will break down **protein** to use for fuel.

At first glance, it seems that a spoonful of jam or honey with a lot of sugar would be as good a source of energy as an egg, which has some fat and some protein in it. But this is not the case. Sugar is digested very quickly; more quickly than starch and far more quickly than protein and fat. The energy from a spoonful of jam or honey will be felt immediately because it will get into the blood fast, and raise the level of sugar in the blood. However, it will leave the blood quickly too and our blood sugar level will return to the "fasting level," as it is called. When that happens we feel the need for more food again. Many of us jump the sugar level in our blood up again by eating more sugar, and soon it is down again too.

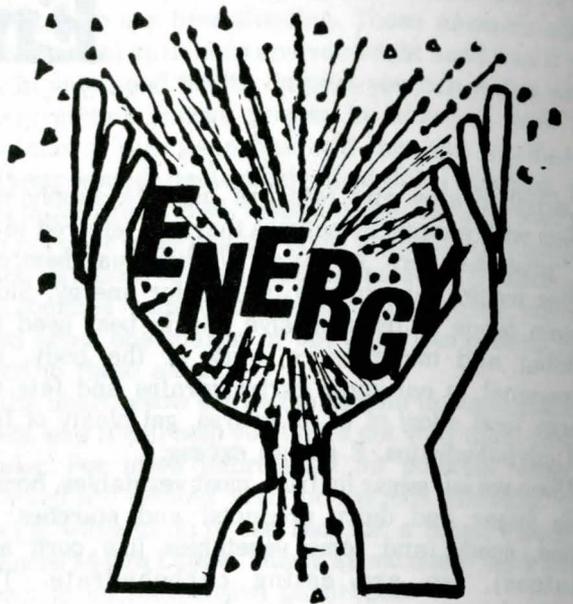
Or this time we might take caffeine to pep us up. Caffeine is in **coffee** (about two grains per cup), **cola drinks**, like Coke, Pepsi and Dr. Pepper (one grain per bottle—thanks to the Food and Drug Administration, which was pressured by the Coke people, there is nothing indicating that on the label), **commercial teas** ($\frac{1}{2}$ grain per cup) but not herbal teas, **sanka** (about $\frac{1}{2}$ grain per cup), **chocolate** and **cocoa** ($\frac{3}{4}$ grain in a chocolate bar). Caffeine in large amounts causes the



heart to beat faster and raises the blood pressure. In small doses, we can still get a momentary high. But since there is no real food coming into the body, the high can't last and later we feel more tired than before. (We may get some side effects too, such as acid indigestion, insomnia and loss of appetite. It is bad for people with liver disease, skin problems, diabetes and stomach trouble.)

Instead of drinking coffee for energy, we should eat, and instead of eating just sugar, we should eat a food that doesn't digest so quickly. For example, if we eat that spoonful of jam or honey on a piece of whole grain bread with an egg or a glass of milk, the jam will digest very quickly and the toast soon after, causing the blood sugar to rise. Just when the effect of the carbohydrate intake is wearing off, though, the fat from the egg and from the milk will start giving us some energy since these take much longer to digest. Instead of going quickly up and quickly down, we'll feel the effects of our food for several hours. This method is much easier on our bodies than absorbing load after load of sugar.

For sustained energy we need strong bones, good blood and healthy tissue, antibodies, enzymes, liver cells and everything else. And for these we need to eat protein, fatty acids, vitamins and minerals. A glass of milk has fat for immediate energy, but it also has



protein, calcium and other nutrients. An orange has sugar, but it comes with vitamin C. These foods are much better energy sources than candy bars and potato chips because in the long run, energy "fixes" won't give us energy; only nutritious food will.

Fats

Fat is just as important for health as anything else. The fat in our bodies provides insulation, cushioning for the internal organs, and we cannot absorb A, D, E and K vitamins without it.

Fats break down into glycerol and fatty acids when we digest them. **Glycerol** is made into **glucose**, a sugar, and is used for fuel; it's the same fuel made when carbohydrates break down in our bodies. Since fat has two times as many calories as carbohydrates, it is our highest energy source. When animals are not fed **fatty acids**, the animals don't reproduce or grow as well as they should. This is possibly true for humans, too. If you are deficient in fatty acids, you may get dry hair and scaly skin. Good sources of fatty acids are natural vegetable oils and nuts, and the things made from them, like mayonnaise and peanut butter. (The most important of these fatty acids is linoleic acid, and safflower oil contains about 70% linoleic acid, so it's a good oil to get, either alone or mixed with others such

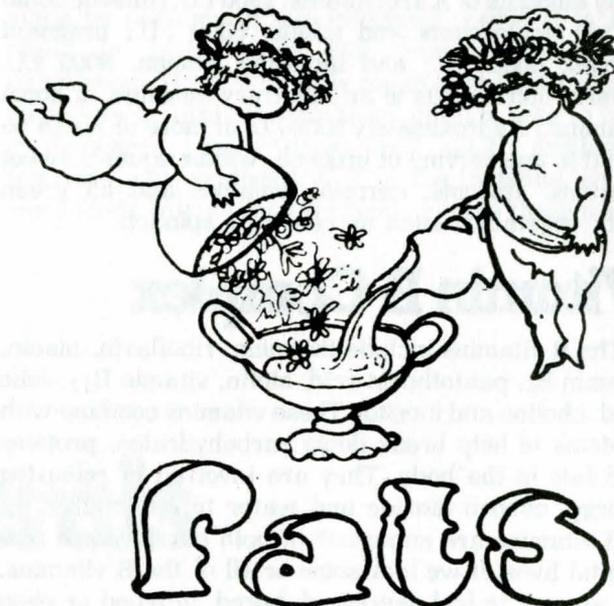
as soy oil, which has about 50%.)

So we need fat, but we can easily eat too much. A lot of fat is "hidden" in our foods. For example, nuts can be about three-quarters fat; so can hot dogs, avocados, cheese, hamburgers, chocolate and egg yolk are about one-third fat. Butter and margarine are at least 80% fat, and oils are 100% fat—so all the baked goods with shortening and all our fried foods have fat. Because extra body weight is a possible cause of heart attack and other serious illness and because fat has a high calorie count, it's a good idea to eat less fat if you are overweight. Have soft boiled eggs more often and fried eggs less; cut down on baked goods, potato chips and french fries; drink low-fat or non-fat milk.

Some of the fats we eat are **saturated**; others are **unsaturated**. Although nobody knows quite why, it appears that if we eat less saturated fat, there will be a little less cholesterol in our blood. Some scientists think high levels of cholesterol in the blood are a cause

of heart attack and that we should eat less saturated fat. Saturated fats are found in meat, milk, eggs, cheese, ice cream, butter, and in nuts and nut products. In addition, manufacturers often saturate fats that start out unsaturated (a process called **hydrogenation**) to make margarines that need no refrigeration and peanut butter that won't separate. It's better to eat poly-unsaturated margarines, peanut butter that has a little oil on the top and other non-hydrogenated products.

A, C and E vitamins are lost when unsaturated fat goes rancid in foods like oils, nuts, wheat germ, whole grain flours and whole grains. When we cook foods in rancid oils, some vitamins in the foods are destroyed. So always refrigerate oils that do not have a preservative. And buy other foods containing unsaturated fats in small quantities so you'll use them up before they go bad. If you do have them around for long, put them in the refrigerator, too. Be especially careful with wheat germ and flour, as their oils go rancid fairly quickly.



Vitamins

The nutrients that we eat include vitamins, minerals, fats, proteins and carbohydrates. They all work together to keep our bodies functioning. We need vitamins to assist in breaking down proteins, fats and carbohydrates into a form that our bodies can use.

It's best to depend on **food**, not pills, for your vitamins since nature has packaged our bodily requirements pretty well and since pills may be an incomplete source of vitamins — it's possible that all the nutrients haven't been discovered yet. As added insurance, a daily-dose vitamin-mineral pill is okay. You may need a pill if you are sick, on the road or on a special diet. Pregnant and lactating women often need special vitamin or mineral supplements; so do infants. Massive dosages of vitamins aren't any magic solution to health problems, and they may upset the body's careful balance. Excesses of vitamins A and D, for example, are stored by our bodies and can build up to harmful levels.

If you take a daily dose vitamin pill, be sure it has A, the B vitamins (thiamine, riboflavin, B₆, B₁₂, folic acid, niacin and pantothenic acid), D, C and E. (Excepting alcoholics, people can make enough of the B vitamins choline and inositol in their bodies.) There are some

vitamin-mineral pills that also have things like iron, copper and zinc, and these are even better. A good price is about a penny apiece, although sometimes they cost more. Regular vitamins are probably just as good as the more expensive "natural" ones. The only really "natural" vitamins come in food, not in highly processed pill form. Besides "natural" vitamins are only partly "natural." For example, laboratory-made ascorbic acid is put into rosehip vitamin C pills; otherwise they would be the size of tennis balls. The sugar-coated vitamin pills made for children are dangerous because they tempt kids to overdose on vitamins.

Vitamin A

A, like other vitamins, helps our bodies to grow and allows us to have good bones and teeth. We need vitamin A to see well in dim light. We also need A so that our mucous membranes are healthy enough to resist infection, but extra A won't help us resist infection any better. So, don't pop vitamin A pills — over a time, vitamin A in massive doses can cause joint pain, loss of hair and jaundice. The recommended

daily amounts of A are: infants, 1500 I.U. (International Units); adolescents and adults, 5000 I.U.; pregnant women, 6000 I.U.; and lactating women, 8000 I.U. (International Units is an arbitrary measure of some vitamins.) Approximately 5000 I.U. or more of A can be found in one serving of broccoli, winter squash, sweet potatoes, apricots, carrots, tomatoes and all green leafy vegetables such as chard or spinach.

Vitamin B Complex

The B vitamins include thiamine, riboflavin, niacin, vitamin B₆, pantothenic acid, biotin, vitamin B₁₂, folic acid, choline and inositol. These vitamins combine with proteins to help break down carbohydrates, proteins and fats in the body. They are involved in releasing energy, carbon dioxide and water to our bodies.

B vitamins are important in both our physical and mental lives. If we lack some or all of the B vitamins, we are apt to feel depressed, bored, fatigued or even angry or fearful.

White flour, white rice, white macaroni and white sugar are all refined products; so is brown sugar which is white sugar with a little molasses added. During processing the highly nutritious parts of these foods are taken out; they lose most of their B vitamins. The refined foods may not taste better, but they do last longer. Refined flours and sugar are so valueless that bacteria can't thrive on them. Because these foods don't decay fast, these products can be shipped further and kept in the stores longer, creating a larger market for the product and more profits for the companies — but less food value for the consumers.

Avoid sugar or refined grain products as much as possible and eat a good mixture of B-vitamin foods. The best sources are: liver, kidney, heart and other meats, fish, brewer's yeast, wheat germ and other whole grains. Other good to fair sources are: egg yolks, milk and yogurt, molasses, dark green leafy vegetables, dried beans, peanuts and potatoes.

Vitamin C (Ascorbic Acid)

We need vitamin C for healthy capillary vessel walls, bones, cartilage and connective tissues such as muscles. This is why C is so important in healing our wounds and in helping us to withstand the stresses of injury and infection. C is also necessary for cell respiration and to help proteins break down nutrients so the body can use them.

Symptoms of C deficiency include poor healing of wounds, irritability, retarded growth, lower resistance to infection, and scurvy.

The recommended daily amounts of C are: adults, 70 mg.; children up to nine, 30 to 60 mg.; boys and girls, 70 to 80 mg.; women during pregnancy and lactation, 100 mg.

The best sources of C are: citrus fruits, cantaloupes, strawberries, tomatoes, green peppers, broccoli, rosehips and manzanita berries. Other good sources are: brussel sprouts, dark green leafy vegetables, cabbage, sweet potatoes, potatoes and turnips.

Vitamin C is easily destroyed by light, heat, copper, iron and baking soda, so eat vitamin-C fruits and vegetables raw, or lightly cooked in a tightly closed vessel.

During infections such as pneumonia, rheumatic fever and tuberculosis you need extra amounts of C. Some people claim that massive doses of vitamin C can cure colds and other infections. Others think that although C helps prevent infections it won't do any good against infections that are already there. "Consumer Reports" magazine warns that massive dosages of C are possibly harmful to diabetics, persons with kidney ailments, and perhaps others. As with any other vitamin, be careful when taking large dosages of vitamin C.

Vitamin D

Vitamin D helps regulate the absorption and anchorage of calcium and phosphorus in our bones and teeth. When new skeletal tissue is being built, there is a definite increase in the body's need for D, so for infants, children, teens, and pregnant and lactating women, 400 I.U. of vitamin D are recommended each day. The need is small for other adults, and if it weren't for smog in our air, they could get their needs met by the sun. Fish liver oil is the only good food source of natural vitamin D. Most milk, however, is fortified with 400 I.U. per quart to help the body use the milk's calcium.

If you take vitamin pills, don't take large dosages of vitamin D since large amounts over long periods can cause the body to deposit too much calcium in the bones and even in soft tissues, like the kidney.

Vitamin E

Vitamin E is needed to keep fats from going rancid and to keep vitamins A, C, D, E and K in the form which allows our bodies to use them. It protects fat tissue from abnormal breakdown. It has been shown that female mice and rats cannot reproduce if they don't get enough vitamin E. So far this has not been proven for humans, though. Deficiency of vitamin E harms the red blood cells and leads to anemia in infants.

Some people report that direct application of vitamin E oil on wounds, burns and poison oak will make them heal quicker. This may, however, be because of the oil, not because of the E.

The daily need for E is 30 mg. Larger amounts are needed if you eat a lot of unsaturated (mainly vegetable) oils. It's hard to get this amount without a

special effort.

The best sources of vitamin E are wheat germ, unheated wheat germ oil and other vegetable oils, nuts and seeds, whole grains, dark green leafy vegetables and dried beans.

Vitamin K

Vitamin K is necessary for blood to clot, and

deficiencies increase chances of hemorrhaging. K is made by bacteria in our intestinal tracts. It is also found in leafy green vegetables, cabbage and cauliflower. There is no daily requirement listed due to variations in intestinal synthesis, but it is rare to have a deficiency. Sulfa drugs and other antibiotics interfere with synthesis of K in the intestine, so eat more foods with vitamin K when you take these drugs.

Minerals

Minerals are inorganic substances—meaning ones that don't have any carbon atoms—needed to keep our bodies functioning.

Calcium

99% of the calcium in our bodies is in our bones and teeth. Calcium also aids in coagulation of blood, nerve impulse transmission and muscle contraction. Some people feel that calcium helps us to relax and relieves menstrual tension.

Adults need 800 mg. a day; infants need 400-800 mg. a day (the larger amount when infants are bottle fed and therefore do not absorb as much calcium); pre-adolescents need 1200-1400 mg. a day; adolescents, 800-1000 a day; and pregnant or lactating women, 1200 mg. a day. You can get about 300 mg. in a cup of milk, 220 in an ounce of cheese, 65-145 in ½ cup of leafy green vegetables, 115 in a tablespoon of blackstrap molasses, 80 in three ounces of cottage cheese, 100 in three ounces of oysters or fish that we eat with the bones—such as canned salmon or sardines—and small amounts in eggs, cabbage and carrots.

Phosphorus

Calcium and phosphorus combine to make bones and teeth. Phosphorus also keeps the blood from being too acidic or too basic, helps our muscles contract, breaks down carbohydrates and fats so the body can use them and transports the fats to our cells. Nursing mothers need phosphorus to make milk.

We need the same amounts of phosphorus as we need of calcium. It is easily supplied in a diet which has eggs, milk, cheese, meat, fish, fowl and whole grain

bread, rice and other cereals.

Iron

Iron is needed to carry oxygen from our lungs to our tissues and to make red blood cells. It is part of every cell in our bodies. A shortage of iron causes anemia; anemic people often feel tired and frequently find themselves short of breath.

Infants need 6-15 mg. a day; men need 10 mg. a day; and women during their reproductive lives need 18 mg. If a woman bleeds **very** heavily, after having an interuterine device put in, for example, she may want to take an iron supplement or eat iron-rich foods daily, such as liver.

The best sources of iron are meats, especially organ meats like liver, kidney and heart, poultry, fish and shellfish. Dates, raisins, nuts, green leafy vegetables, dried beans, whole grains, dark molasses and egg yolk are good sources. We can also get iron from cooking with iron cookware. If you take a supplement, ferrous sulfate is the most easily absorbed. Iron absorption is improved when vitamin C is taken because C helps convert iron into the forms most easily used.

Iodine

Almost all of the iodine in our bodies is found in the thyroid gland, which is located in our necks. Iodine is needed by the thyroid to form the amino acid thyroxine, a hormone which controls the rate we utilize oxygen. A deficiency of iodine is a cause of goiter, which is an enlargement of the thyroid gland. We need approximately 150 micrograms per day. Good sources are seafood, vegetables, meat, eggs and dairy products, iodized salt and sea salt.

Fluoride

Most of the fluoride in our bodies is found in our bones and teeth. Experiments have shown that small amounts of fluoride in the water supply (one part per million) can reduce tooth decay by 50% or more. Many cities now have fluoridated water. Fluoride is present in small amounts in practically everything—soil, water supplies, plants and animals—but not in sufficient quantity to prevent decay of teeth.

Sodium

We get most of our sodium from table salt: sodium



chloride. It is needed to assure that the body's environment is neither too acidic nor too basic, to regulate the balance between the fluids in the body and is important in muscle contraction and conducting nerve impulses. We usually get 2-6 gm. or more of sodium each day, which is more than we need, except during hot weather when we sweat and lose sodium from our skin. Excess sodium is excreted from our bodies. Based on studies of experimental animals, it appears that a prolonged high-salt intake may cause high blood pressure.

Chloride

Chloride, like sodium, is needed to assure that the environment of the body is neither too acidic nor too basic. It is important in water balance. It combines with hydrogen to form hydrochloric acid, needed for digestion in the stomach. We usually get enough chloride, mainly from table salt, and it is quickly excreted if there is an excess.

Potassium

Potassium is found mainly in muscle and red blood cells. It is needed for muscle contraction, regular heart rhythm, conduction of nerve impulses and maintaining fluid balance in our bodies. Potassium is found in many foods and most of us get 1.5 to 6 gm. each day. We need at least .8 to 1.3 gm. a day. People taking diuretics should take more; drinking a large glass of orange juice is a good way to get the extra amount.

Magnesium

Magnesium is used for regulating cardiac, skeletal, muscle and nervous tissues. Adults need 300-800 mg. a day. The average diet contains this much magnesium. The best sources are whole grains, nuts, legumes, and dark green leafy vegetables.

Sulfur

Every body cell contains sulfur as a constituent of two amino acids — cystine and methionine. Cystine is needed by the skin, hair and nails. It is also a component of many other body compounds, such as insulin and cartilage. If you eat enough protein, you will get enough sulfur.

Manganese

Manganese is needed for many chemical reactions in the body. It may be needed for carbohydrate metabolism. It is found in many foods and a good diet will supply an adequate amount.

Copper

Copper is needed for absorbing and using iron, for oxidizing fatty acids and for using vitamin C. A deficiency, which is rare, is a cause of anemia. The average diet provides 2 to 5 mg. daily, but on 2 mg. is needed.

Cobalt

We get cobalt in vitamin B₁₂. B₁₂ is needed for full growth of red blood cells in our bones. Our daily need for cobalt is not known, but we need 3 to 5 micrograms of B₁₂ every day. B₁₂ is found in liver, kidney, milk, cheese, eggs, and muscle meats.

Zinc

Zinc is one of a group of trace elements or "micro-nutrients" that scientists are learning more about now. It is found in the pancreas. Zinc helps enzymes in their work of accelerating chemical changes in the body. It also promotes healing. Men deficient in zinc do not mature sexually. Seafood, especially oysters, meats, and eggs are the best sources. Zinc is also found in vegetables, although they aren't such a good source.

Water

Water is the major constituent of our bodies, making up 55-60% of our weight. It contains varying amounts of sodium, calcium, magnesium and iron. Almost all the food we eat (except fat) contains water. Water is



needed in all body functions. Drink about six to eight glasses of fluids daily.

Special Diets

Street Food

If you're travelling or don't have a kitchen, it's easy to grab some cupcakes, cookies or potato chips, but they're not healthy. If you try, you can find foods that don't need cooking but will give you what you need. For vitamins and minerals get fresh fruits and fruit juices: fresh vegetables such as carrots, tomatoes, lettuce, celery, alfalfa and bean sprouts, spinach and cucumbers; whole grains in whole wheat bread and

crackers, wheat germ and granola cereal; seeds, nuts and brewers yeast. Good protein sources are milk, cottage cheese, yogurt, cheese, nuts, seeds, peanut butter, wheat germ and brewers yeast. You can get tuna, mackerel, sardines and beans in a can for protein, too. (Also see our article on protein.) You might consider a vitamin pill — they come to a penny or two a day — but remember that you have to eat a lot more than a pill for protein, minerals and energy food! If you don't have much money, see our tips on how to get free or cheap food under "Money."

Macrobiotic and Vegetarian Diets

Vegetarian diets can be very healthy, inexpensive, low in pesticides and ecologically sound, but only if you take care to get **all** your nutrients, especially protein, vitamin B₁₂, calcium and iron.

A lot of people are becoming vegetarians, but are ignoring their protein needs, and that can be dangerous. Vegetarians who do not eat any dairy products can get protein by combining dried beans, grain and nuts or seeds at the same meal and by eating a lot of soy bean products, including soy cheese, soybean sprouts, soy milk, soy noodles, soy grits (mixed with rice and bulgur wheat) and soy flour in breads. See the article on protein for more information. A good book for further details is "Diet for a Small Planet".

Vitamin B₁₂ is hard to get from vegetable sources. You may get a bit of B₁₂ from the organisms that grow on vegetables, but not much. Even among strict vegetarians severe B₁₂ deficiencies are extremely rare, however. When they do occur, red blood cells become malformed and there is serious damage to the central nervous system. To avoid minor deficiencies on a vegetarian diet you might take a B₁₂ supplement each day, if you do not want to take an egg or a glass of milk.

Vegetarians also need to be sure to get enough calcium. Eat a few servings of collard greens, turnip greens, mustard greens, cooked dry beans, kale or

broccoli each day. There is a little calcium in cabbage and carrots, too. Blackstrap molasses has 115 mg. of calcium in a tablespoon, and if eaten regularly, it is a good source of calcium. (Adults need 800 mg. a day, more when pregnant or nursing; adolescents need 1000 to 1400.) Blackstrap molasses is also a good source of iron. 3.2 mg. There is also iron in smaller amounts in dates, raisins, nuts, green leafy vegetables, whole grains, dried beans and in iron cookware. Women on a vegetarian diet should consider a supplement because during their reproductive lives their iron need is quite high (18 mg. as compared to 10 mg. for men). See our sheet on minerals for further information. People who eat a modified vegetarian diet — with eggs, milk, yogurt and cheese — are less likely to have these mineral deficiencies. But measure your iron and calcium intake for a few days — and your protein intake, too — to be sure that you're getting enough.

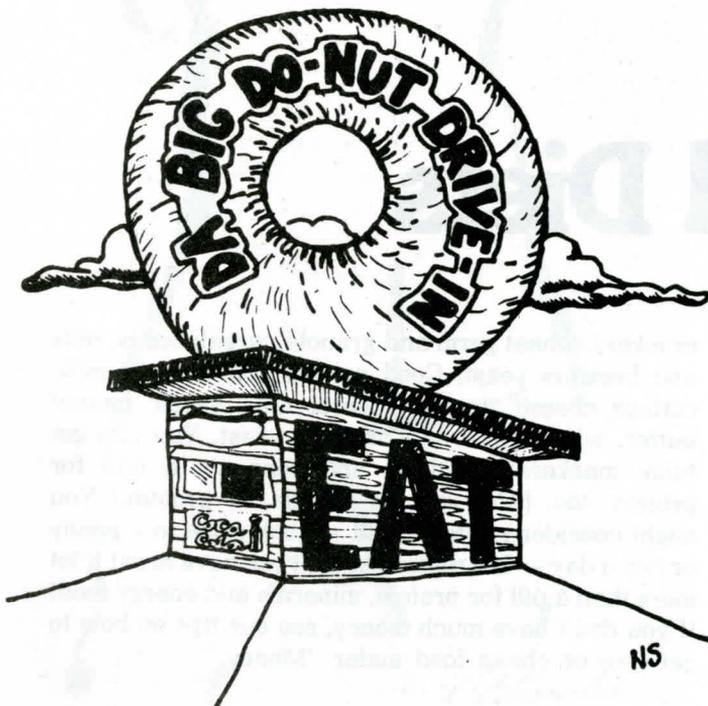
If you are on a macrobiotic diet you should be concerned about the above, too. Also, if you eat an all-rice diet for a long period of time, your body will use up its vitamin, mineral and protein stores, and you will suffer from all sorts of deficiencies.

The Mucousless Diet and Fasting

People on a mucousless diet eat raw fruits and green vegetables and they often fast. Some people stretch the diet to include nuts. But even if you eat nuts, you will not get enough iron, calcium, other minerals, B vitamins and protein on this diet. This diet is especially harmful to unborn babies, infants nursing from a mother on the diet or who are not being fed milk and other nutrients, and kids.

The idea of the mucousless diet is that mucous is a poisonous waste material from food that clogs up the body and makes you sick. According to this, if you eat fruits and green vegetables you will have no mucous and stay healthy. We couldn't find any reason why mucous is bad for us; we did find many reasons why it is good. In the stomach, for example, mucous prevents pepsin, which breaks down the protein we eat, from breaking down the protein of the stomach itself and destroying it. During colds, the extra mucous is there to protect our bodies from bacteria. It's also true that the body will produce mucous no matter what foods we eat; there are no mucous-producing foods. Of course, if we are eating **very** badly, the body can not produce mucous, just as it can not produce hair or new liver cells to replace the worn ones, but that seems a bad thing, not a good thing.

Many people who are into the mucoseless diet, and some others, say that fasting is good in order to give our bodies a rest from the work of digesting food. This is like giving the right leg a rest by hopping on the left



one. You don't really need to—unless the leg is injured. Also, people into fasting say that it cleanses the body of waste materials, but in fact the body cleanses itself without fasting. We can trust our bodies to operate well without our doing special things, the way other animals do. Deer and fish don't cleanse their bodies or rest their digestive systems by fasting; they just eat sensibly and get exercise, and that works fine. Sometimes people fast because they want to stop thinking about food for awhile, but it's probably better

to follow a very simple diet that requires little preparation instead.

If your body is in good condition, a day or two of fasting won't really hurt. But remember that when you don't eat for even a day, your body gets energy by breaking down the body's protein and fat. Much more protein is lost than fat. Over a period of time fasting damages the muscles, the heart and other body tissues, and makes us more prone to illness because of the protein loss.

Dieting

Infants get sugar in bottled baby foods and kids get sugar-coated cereals. Cake, ice cream, donuts and fatty hamburgers from the local hamburger stands are used as pacifiers. By the time we're adults we're hooked on these high-sugar, high-fat foods. We eat them when we're too rushed to eat well because they're always nearby—at the check-out counter or the corner drug store or in the office vending machine. Besides we're been taught that when we're bored with our job, we can "come alive" on Pepsi. Instead of being treated like real people with real problems, we're treated like consumers and told that we can manage with "escape machines" and bubbly drinks and the latest corn chip. Surrounded as we are by high-calorie, non-nutritious foods, and urged by thousands of ads to eat them, it's no wonder that many of us are overweight.

A few extra pounds won't hurt anyone. (In fact, there is a lot of pressure on people, particularly women, to be underweight, and that should be resisted.) But insurance companies show that people who are 20% overweight die at a rate of 17% higher than people with normal weight, and extra weight makes us uncomfortable and more prone to certain illnesses.

If you want to lose weight, it will help if you understand why you gain weight. Some of us were praised for eating when we were children and trained to overeat. Because women are frequently pestered, or even attacked, when we are slim and "sexy," we may sabotage our own efforts to lose weight. Perhaps eating high-calorie foods is a way we have of comforting ourselves after a hard day (and we could use hot baths instead). Or maybe we have an under-active thyroid gland and need to see a doctor for treatment.

There are a few ways to diet, but some rules apply no matter how you do it.

Don't use diet pills. Many are amphetamines, and they are all unhealthy. **Check diet foods carefully before you buy.** They are expensive and many of them are not worth the high price. (Diet margarine, for example, is one-half water and that "low-calorie" water makes diet margarines twice as expensive as regular margarines!) **Eat at least three meals a day.** If you eat all of your food at once, more will be stored as fat. **Exercise** to burn off calories and build up muscle. **Don't crash diet.** On starvation diets people do lose weight, but two-thirds is muscle and other lean tissue and only one-third is fat. When we lose lean tissue, we feel weak and can become ill. Besides, when lean tissue disappears, **it's harder to lose fat** because lean tissue is necessary for the body to burn off fat. **Measure your nutrient intake,** not just calories or carbohydrates. You'll probably find that you are less hungry when you are getting what your body needs. And in any case, you don't want to damage your body when you diet. In fact, you may want to take a daily multi-vitamin and mineral pill while dieting. **Use poly-unsaturated oils,** such as corn, safflower or soybean oils in salad dressing or in cooking. These oils aid the oxidation of fat.

One way to reduce is to cut down on calories. Eat smaller portions of the food you eat now; watch especially your intakes of starches like bread, potatoes, beans, rice, spaghetti, etc., and cut out sweets.

Another way to reduce is to cut down on carbohydrates. Some nutritionists feel that we can eat in such a way as to interfere with fat production and promote fat destruction. Glucose is needed by our bodies to make and maintain fat. Because carbo-

hydrates are the main source of glucose in our bodies, if we cut down on carbohydrates, we won't make so much fat. Insulin is also needed by our bodies to make and maintain fat. It is believed that large amounts of glucose or caffeine in our blood promotes secretion of insulin. So if we eat less carbohydrates and caffeine, the body won't secrete so much insulin, and we won't produce so much fat and stored fat will get used up. Although the way in which this low-carbohydrate diet works is controversial, it is certain that people lose weight on it, and it's healthier and more varied than most diets.

Foods that have **no** carbohydrates or are very low in carbohydrates are: meats, fish, fowl, eggs, cheese (except cottage and cream cheeses), oils, margarine and butter, lettuce, celery, cucumbers and green pepper. You can eat all you want of these foods. As on the low-calorie diet, you should avoid sugars and starches but you can eat fat. You should eat about fifty to eighty grams of carbohydrate daily; vegetables and cheeses are the most logical sources. See a nutrition book in the library or an inexpensive paperback to figure out the grams of carbohydrates in any food if you follow this diet. But here are a few examples of the amount of carbohydrates in some common foods:

- 1 cup yogurt — 13
- 1 cup milk, whole — 12
- 1 cup heavy whipping cream — 7
- 1 ounce cream cheese — ½
- 1 cup cottage cheese — 4½

- an apple or orange — 18
- ½ cup soybeans, dry — 35
- 1 cup greens or cabbage — 6
- a tomato or avocado — 6
- 1 piece of bread — 12
- 1 cup rice — 43
- 1 tablespoon sugar — 12
- 3 ounces wine — ½

A day's menu might be scrambled eggs with a few tablespoons of sour cream, tea and an orange for breakfast; tuna fish salad or stir-fried vegetables mixed with cheese for lunch; celery stuffed with blue cheese for a mid-afternoon snack; and for dinner chicken soup or a cheese/celery/soybean casserole, a green salad and cheese for dessert. You can eat many things on this diet that you can't eat on others, so prepare daily treats for yourself to give you the courage to continue dieting. The pitfall of this diet, however, is to nab just one piece of chocolate layer cake (70 carbohydrates) or a cup of applesauce (50 carbohydrates) for dessert, drinking it down with coffee. And then the chicken you just ate for dinner is being turned to fat because the body has glucose and caffeine to use in fat production.

It may help to diet with several other people, meeting once a week to exchange recipes, talk about problems and give each other support.

If you diet slowly, taking off a few pounds a week and make sure you get enough protein, vitamins and minerals, you will have a healthy body when you're done that feels even better than it looks.

Food For Pregnancy And Babies

If you decide to have a baby, you should get your body in shape. Many studies show that babies are healthier and there are fewer stillbirths when mothers have good diets. If there are very severe deficiencies in the diet, a baby may be seriously damaged. For example, recent studies indicate that if a pregnant woman is getting little or not protein, her infant will have brain damage. You will probably want to know more than what we say here about your diet. The books by Dr. Spock are pretty good on nutrition; so is "Food Becomes You" by Ruth Leverton. Sometimes

clinics have pediatricians who know a lot about diet, or ask at public health departments.

Eat at least 65 grams of protein a day when pregnant, instead of the usual 55, especially protein from low-fat protein foods, like lean meat, fish, eggs, soybeans or brewer's yeast. (See our section on protein.) Have two to four cups of milk—either straight or in other foods like custards—or eat two or four servings of cheese, yogurt, collard greens, mustard greens, spinach, turnip greens or molasses daily for calcium. Eat two or three servings of citrus fruit,

tomatoes, broccoli, greens or raw cabbage for vitamin C. And eat a lot of vegetables, especially the dark green and deep yellow ones. Talk to a doctor, nurse or nutritionist about the vitamin or mineral supplements you might need. Because their own bodies are still developing, teenage pregnant women must get larger amounts of all the nutrients than other pregnant women. Nutritional needs are highest in the last five months of pregnancy.

When pregnant or nursing, avoid diuretics, processed foods, foods with chemicals in them and sprayed foods. Many drugs can affect the unborn baby and show up in breast milk if a mother is taking them, so check to see that any medication is okay for the baby and avoid things like nicotine and alcohol, or cut their use down to a minimum. If a woman smokes 20 cigarettes a day while nursing, for example, her baby may get diarrhea or vomit. (Also, cat feces and raw meat have a parasite in them that can hurt an unborn baby, so don't eat raw meat and avoid cat feces.)

Milk

Breast milk is a good natural food if the mother herself is well nourished. It is easier for the baby to digest and higher in vitamins A, C and E than cow's milk. A mother can increase her baby's intake of C and B vitamins by increasing her own intake. In the first days after birth, human "milk" is really colostrum, a liquid that is higher in protein than regular breast milk and has antibodies which help the baby avoid infections. Some colostrum stays in the milk for a few weeks. There are certain advantages for the mother in breastfeeding. There is no formula to prepare or bottles to sterilize or wash. Also, since some of the weight women gain in pregnancy is really meant as "baby food," they will lose it more quickly if they nurse. And in the first days after birth, breastfeeding helps the uterus to contract.

All the nutrient needs are higher for nursing women. For example, you need half again the amount of calcium and ten extra grams of protein when you breastfeed than you did in the last five months of pregnancy. Drink about ten to twelve cups of fluids daily. If you don't eat as well as you should, you'll have less breast milk and it will not be as rich nutritionally. Also, nursing will be a drain on your own body since you give your own nutrients to the baby. If you plan to nurse, massage your nipples daily during pregnancy to toughen them. Also, nursing for most women doesn't just come naturally the first time around. It's a good idea to read about it and talk to other women who have nursed.

Some women may not be able to breastfeed because of jobs or other complications, or they may not want to. A bottle-fed baby should be held and snuggled the same way a breastfed baby is. You can make your own formula by mixing 13 oz. of evaporated milk with 19 oz.



of water and, for carbohydrate, two tablespoons of sugar, honey or karo syrup. Gradually decrease the amount of water and sugar until, by about three or four months, the baby is drinking equal parts of milk and water, and no sugar. Evaporated milk is more convenient, less expensive and easier for babies to digest than whole milk. It is better than non-fat dry milk because it has A and D vitamins and fatty acids that the baby needs. Raw milk has no vitamin D. It does have small amounts of certain B vitamins and of C which pasteurized milk doesn't have, but not enough to make any difference. Since babies can't resist the organisms that may be in milk if it isn't pasteurized as well as adults can, raw milk can be dangerous for them, even fatal. (Just this year one big dairy that sells certified raw milk in Berkeley had to get a whole new herd because tests showed that their milk had

salmonella. Samples taken in 1969 showed that 16 out of the 28 dairies tested produced raw milk, some of it certified, that was positive for Q-fever, which can cause cough, pain, hepatitis and perhaps heart problems.) Commercial formulas cost about \$5 or \$10 a month more than the formulas you make yourself. If you use one, get one with iron in it. If babies are allergic to cow's milk, they can drink goat's milk or commercial formula prepared from soy or some other milk-free protein base. After a baby begins to crawl, you don't have to sterilize bottles any more, but be sure to keep them clean.

Supplements

An infant will need some vitamin supplements no matter how he or she is fed. When nursing, a baby needs vitamin D and flouride (and C if the mother is not getting enough). The bottle-fed baby needs 30 mg. of vitamin C and fluoride, and perhaps vitamins A and D until he or she is getting one can of evaporated milk a day or the whole milk equivalent. You can get a combination A, D, C vitamin supplement in drop form for babies. Or you can use orange juice, ascorbic acid drops or a crushed tablet for vitamin C and a few drops of cod liver oil for A and D. Flouride comes in scored 1 mg. tablets; give half a tablet daily. Adelle Davis suggests that babies get iron and B vitamin supplements in addition to the above. She recommends blackstrap molasses (one drop at first because it's laxative) and nutritional yeast ($\frac{1}{4}$ teaspoon to a bottle to start because it causes gas) as cheap iron and B vitamin supplements. These amounts can be increased **gradually**, but watch for diarrhea and cut back the amounts or drop the supplements if that occurs — dehydration from diarrhea in babies can be serious.

Solid Foods

Start solid foods gradually between two and eight months. Give only a few teaspoons of any food to start and introduce foods one at a time so that you will know what food is causing problems if there are any, like a rash. Let the baby decide when she or he wants to eat a food. (In the beginning, however, a baby may spit out food because he or she hasn't learned to eat solids, not because the food is undesirable.)

A baby is born with a store of iron, but that is used up after several months. So the baby's first solid foods should be iron fortified baby cereals. (Keep the wheat cereals until last as babies are often allergic to wheat. At that point, you can serve Cream of Wheat cereal, too, which is high in iron.) Continue using cereals until the baby is eating sufficient amounts of other iron-rich foods, like egg yolk, meat and beans. (After getting used to cereals, a baby can eat strained fruits and vegetables, then egg yolk (whites often cause allergic

reactions), then meat that's been put through a sieve or scraped off with a knife and cooked, fish and well-cooked and sieved soybeans. At six months a baby can take cooked vegetables, toast and other whole pieces of food, which are good for teething. At this point, you can mash and chop rather than strain food, although meat, beans and fish should be strained until about one year. Avoid popcorn, nuts, pieces of raw carrot and other things that might make a baby choke. Give orange juice for vitamin C, and make sure the baby is still drinking lots of milk.

Home-made baby food is better and cheaper than the store-bought. Many manufactured baby foods have more water or broth than anything else; they're just thickened with corn starch. You pay a high price for bottled water. (Read labels; ingredients appear in order of quantity.) Baby egg yolks in a jar come to over \$1.20 a dozen. If you try to meet a baby's iron needs from the bottled baby meat, it will cost 40 to 50 cents a day (as compared to 2 cents a day from the baby cereals). Factory baby foods use a lot of sugar and salt because the taste appeals to adults, the way the label "Lasagne" on a baby food jar does. But these ingredients aren't good for infants, and it's likely that these large amounts of salt and sugar are habit forming.

You can change the foods you eat for dinner into baby food by diluting them and mashing or blending them well. Mix strong-flavored foods like broccoli with milder or naturally sweet foods, like apple sauce. You can pour blended foods into ice cube trays and freeze them, cooking up a cube or two for lunch or dinner. If a baby is become so independent she or he no longer wants to be spoonfed, make blended food into pancakes by adding baby cereal, egg yolk and a little wheat germ, and frying. These pancakes can be stored for a few days in a closed jar in the refrigerator. It's a good idea to use foods that haven't been sprayed for baby food. Pesticides like DDT accumulate in the body, and testing hasn't shown what happens to a life that gets such poisons from the start.

Don't worry if your baby refuses to eat certain foods or seems to lose his or her appetite for a few days. Until six months, milk is the most important part of your baby's diet anyway. (Solids supply iron and an education in food tastes and textures which is best acquired before six months.) One study has shown that, left on their own and kept from sweets, babies are able to balance their own diets, in spite of an occasional day or two-day fascination for one particular food. So, just remove food without a scene if your baby doesn't eat. Don't coax a baby to eat by sweetening foods, for that can lead to overeating and overweight. Fat babies develop more fat cells than babies who aren't overweight; this means that as adults they will have more fat cells, and be more likely to be overweight.

Time and Money

Time

In many of our homes only one person — a woman — is responsible for all the shopping and the cooking. Because women don't want to spend all their time in the kitchen, they rely on processed foods, such as cake mixes or instant rice. The manufacturers even talk about "liberating" women with these foods. It's not a good idea to buy "liberation" from industry though because we are often buying chemical additives and expensive nutritionless foods with it.

Instead of relying on manufacturers, women should try to rely more on the people they live with and care about: men, other women, and children. When cooking is shared, it can even be an enjoyable task. We can also share meals with the people around us, maybe the folks downstairs or next door. That way we have to make a salad or perhaps a casserole, but not the whole meal. And we get to socialize, too.

We can also simplify meals. It is better to eat omelets, salads, cheese or left-overs than the frozen or canned "gourmet" or "instant" dinners. This may need some getting used to because women are traditionally supposed to win hearts by fixing elaborate meals. But if women are happier doing things other than cooking and people are healthier when they don't eat canned, frozen or boxed dinners, it's worth changing eating habits. Frequently the "quick" foods don't really save us work. Jello pudding, for instance, which is a pudding depending on cornstarch and vegetable gums for thickening, isn't much quicker to cook than the cornstarch puddings in any cookbook — generally when you buy Jello you pay about 45 cents a lb. for the sugar you'd normally pay 18 cents a pound for. (And when you make a pudding yourself you have nutritional options: you can cut down on the sugar, add wheat germ, eggs and powdered milk, and avoid chemical additives.) It's no more time-consuming or difficult to put brown rice in a pan of water than instant white rice, and you can do something else while it cooks itself. Instant breakfasts are just non-fat dry milk, vanilla or chocolate flavoring, some added vitamins, and a thickener. Mixing up milk and vanilla or chocolate flavoring is just as "instant." And you can drink it with a vitamin pill. Better still, if you have a blender, put in yogurt, orange juice, a banana and some wheat germ. You probably won't even need the vitamin pill.

Using left-overs saves time. Remember that protein lasts, so eating a three-day old soybean or chicken dish doesn't mean that you're getting less protein. Some

vitamins keep fairly well, but others, like C and E, fade away quickly. So it's best when eating left-over rice and mixed vegetables to get some fresh fruits and vegetables too — cut up a pepper and tomato and throw it into the "old" dish.

Another way to save time is to cook in quantity. Yogurt and granola will keep, so make enough to last. Invent your own all-purpose dry mix for pancakes, muffins and biscuits; or an all-purpose sauce base that will keep in the fridge for a week—one that will be an herb sauce one time, a cheese or onion sauce the next. Double Monday's vegetable soup recipe and change it into a hearty fish soup on Wednesday by just adding fish, potatoes, and a can of clams. If you have the room you can store things in your freezer too.

Money

We can eat well and keep the food bills down. Eating well doesn't mean that we eat a steak every night. It does mean that we get good amounts of protein, vitamins and minerals and that we keep away from pesticides and chemical additives as much as possible.

Many of us who use processed and convenience



foods should look twice at them when we're thinking about the high cost of food. Potato chips cost about 90 cents a pound. Potatoes cost about 10 cents a pound, and they're better for us. By law, spaghetti with sauce and meatballs only has to have 6% meat. That means we probably spend about \$3.50 a pound for the meat. The ham in deviled ham spread costs about \$5.00 a pound.

Meat is one of the most expensive items on our shopping lists. We can substitute many things for meat and still get good protein. If, for example, we got all our daily protein from dried non-fat milk, we'd pay 10 cents daily; from cottage cheese, 19 cents; from eggs, 33 cents; from soybeans or soygrits, 15 cents; from codfish, 33 cents; from wheat germ, 27 cents. If we got protein from hamburger we would pay 51 cents daily; from pork chops, \$1.15; from porterhouse steak, \$1.67; from lamb rib chops, \$1.81. Of course, we wouldn't sit down and eat 27 cents worth of wheat germ to get all our protein for the day. But we can eat an egg for breakfast, some cottage cheese with lunch, and beans, grains and a salad sprinkled with wheat germ for dinner, saving money we would have spent on meat, while getting good quality protein. For about \$5.50 you get eight servings of rib roast and about 150 servings of soybeans. Non-meat sources of protein are often healthier because they have less fat and less pesticide residue. (See our section on protein for more tips.)

The other thing we can do to save money is watch how we shop. Stores are designed to "get" us by attracting our attention at strategic spots, like the check-out counter, influencing us to buy things we don't really need. We can avoid the traps if we make shopping lists. Also, if we shop when we're hungry we will probably do more impulse buying. We should also keep an eye on checkers to see that they charge us the

right prices, check the store's scales by weighing our purchases at home, make sure that the advertised bargains are there at the bargain prices, and avoid stores with games, stamps and other gimmicks.

Check the rears of stores for produce that has been tossed out; it is frequently still okay to eat. Ask stores that are closed on Sundays for a Saturday night markdown. Also, check feed stores for whole wheat, oats and other "human food." If you pass an orchard with apples falling off the trees, ask if you can pick for a low price. Remember too that produce which doesn't conform to a certain legal size, or that is mispacked, should be labeled "substandard" and can't be sold in stores. You may, however, find farms happy to sell this produce directly to you if you ask. Established charitable institutions can get permits from the Department of Agriculture to buy it. This "substandard" food is perfectly good to eat. Another thing you can do is to buy grains, produce, and other foods cooperatively and split them up back home. Gardens, of course, are another possibility.

So are the food stamp and commodity programs, although efforts are being made to cut these back in many places. You can ask about the regulations and apply at welfare offices. The health department, local churches, social service departments, free clinics and other community organizations can tell you about emergency food programs in your area which give out hot meals or canned goods and dried foods.

When you're thinking, too, about food expense and comparing the cost of good whole wheat bread and puffed up white bread, remember that doctor's bills are more expensive than any food on the market. Creating good health by eating well is an economy in the long run.

Composting

If you're going to be settled in the same place for a while, why not try growing some of your own food? For a garden you'll need a small area with good soil and a lot of sun. 5% of good soil is humus, organic matter. (The rest is air, water and minerals from rock fragments.) Humus makes tiny passageways in the soil for air and water and provides food for friendly soil bacteria and fungi. So, to make poor soil richer, add lots of humus in the form of compost, animal manure,

green manure (by planting an area to clover and turning it under) and heavy mulches.

Compost is decayed organic matter. Make a compost pile using all your organic kitchen garbage (except grains and protein-rich foods which attract rats) and dead leaves, hair, cut grass, pine needles and seaweed. Choose an outside area that gets plenty of sunshine for your pile, and layer these materials with liberal sprinklings of manure. Wet down each layer as you



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pile it in. Cover the pile with a piece of black plastic. It helps soak up the heat of the sun, keeps rain from washing out nutrients and holds moisture in. The pile should heat up to 130-160° in a few days. This means the bacteria are breaking down the material in the pile into soil. If the pile isn't heating up, add more manure. If the pile smells, add natural limestone. Turn the pile every two to three weeks and water it periodically—but don't soak it.

A mulch is a layer of organic plant material (hay, leaves, pine needles, etc.) laid on top of the exposed soil in your plot. It conserves moisture, regulates soil temperature, discourages weeds and adds a layer of humus.

In California, you can start planting as early as February.

For more information, read "Grow Your Own" by Jeanie Darlington.

Not everyone in the city has a yard for a garden. If you have a yard you're not using, invite friends and neighbors to plant it. And if you don't have a yard, ask in your neighborhood for a garden site. Maybe several people could plant together and share the rewards of their labors.

Good Food

So, after all is said and done, what makes for a good diet? In brief, here are some general guidelines to follow.

- * Keep a list of the foods you eat for a few days. Check it over to see if you are getting all your vitamins, minerals and proteins.

- * Avoid processed foods and foods with chemical preservatives as much as possible. A few chemicals, like the preservative BHT in oils, seem to be okay, but most of them haven't been proven safe. (BHT is very similar to vitamin E in chemical composition.) Avoiding chemicals means cooking more from the start, and that means that you may have to change some cooking habits. (See sections on "Time" and "Money.")

- * Eat non-sprayed foods if you can. You can get them at health food stores or from your garden.

- * Avoid sweets as much as possible, like candy, cookies, cake and soda pop—which is just sugar, water and artificial flavoring. Honey has **very** small amounts of a few nutrients that sugar doesn't have (like 1 mg. of calcium in a tablespoon—but we need 800

mg. or more daily). So, basically, it's just another sugar. Molasses, on the other hand, does have a very good amount of calcium and iron, especially blackstrap molasses; so when you can, use it rather than other sweeteners. Also avoid cigarettes and large doses of caffeinated beverages.

- * Eat low-fat or non-fat foods as much as possible. For example, substitute low-fat or skimmed milk for regular milk. Make or buy low-fat yogurt and cottage cheese. Trim meat or eat less of it. Limit cooking with fats. For most of us, keeping down our fat intake is a good idea because fat makes us put on pounds quickly. And, besides, DDT and other pesticides accumulate in fat, so we drink less DDT if we drink skimmed milk.

- * Learn how to substitute other things for meat, which is a costly protein source. (See the section on "Protein.")

- * Substitute whole grain products (brown ones) for the white one: whole grain breads, brown rice, oatmeal, bulgur wheat and macaroni made from whole wheat or soy flours. The white ones have had the most

nutritious parts milled out. If you must use a white rice, use the converted kind.

* Use stone ground flours and flour products when you can. In regular milling the presses reach such high heats that many vitamins are destroyed. Stone grinding saves them.

* Spike foods as much as possible with the super-foods: brewer's (or nutritional) yeast, wheat germ, non-fat and non-instant dried milk, soy flour, soy grits (ground soybeans), rice polishings, sesame seeds and the like. For example, if you're making cookies, stick in a tablespoon of brewer's yeast, a couple of tablespoons of wheat germ and ¼ cup of soy flour to a cup of whole wheat flour. Put some soy grits in with rice, and sprinkle sesame seeds on top. Sprinkle salads liberally with wheat germ. If these things become regular additions to all the cooking, you'll up your vitamin and protein and mineral intake at a low price.

* Eat in the morning. The body hasn't had food for a while, and it may start using muscles, lean tissue and other protein in the body for energy food if it doesn't get any from outside sources! Also, it's a good idea to eat several smaller meals during the day rather than one large one. If we eat a lot of food at one time, more is stored as fat because the body can not use it all immediately.



Cooking Tips



* Wash hands before cooking because dirty hands can cause food poisoning.

* Refrigerate leftovers or keep them hot. Lukewarm food is a vacationland for harmful bacteria. It's especially bad to leave unrefrigerated the kinds of foods that don't get refrigerated before eating, like desserts with milk and eggs in them, lunch meats, cooked ham and poultry, stuffing from a turkey or leftover casseroles.

* Raw chicken has the bacteria salmonella in it, which gets destroyed when the chicken is cooked. After cutting raw chicken on a cutting board, you must scrub the board with a hard brush, using hot water and one of the kitchen cleanser compounds to destroy the salmonella. Otherwise, anything else you cut on that surface will become contaminated.

* Wash well or peel sprayed produce.

* Some vitamins are easily lost in heat and air. So eat fresh fruits often and keep vegetables in the refrigerator.

* When cooking fruits and vegetables, use as little water as possible (about ¼ cup) and cover pots and pans tightly; otherwise vitamins will end up in the cooking water or will decompose in the air. Or use double boilers, pressure cookers and steam racks. Or stir-fry vegetables in a little oil.

* Save any leftover cooking water and use it for soups, cooking vegetables or in any recipes where water is called for.

* Use cast-iron cookware. The iron ends up in our bodies.

* When cooking with oils, never use such high heats

that the oil smokes. This destroys nutrients.

* Refrigerate oils if they have no preservatives in them, and refrigerate foods with oils in them, such as wheat germ, flour and brown rice — or buy them in small quantities so that you use them up before they go rancid.

* Wash dishes well and let them drain dry. Damp dish towels left to dry after use are a good breeding ground for bacteria.

* Sponges collect bacteria deep in their pores and are therefore hard to sanitize after use. If you can, substitute another cleaning tool.

What Next?

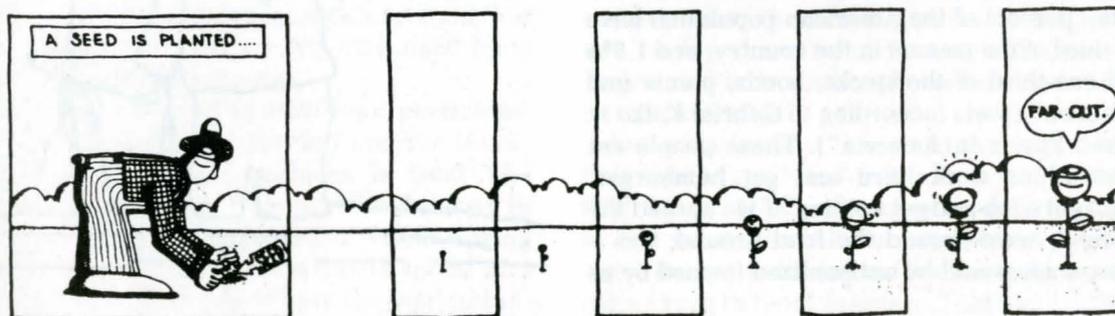
If we had the U.S. the way we want it, there would be some changes in food. We don't have things our way. That's not because our ideas are bad or "utopian," but because a small minority of the population in America doesn't want them. These people are wealthy; they own or manage corporations; they have lobbies in Washington; they head the boards of our universities, hospitals, and charities; they give money to elect the candidates of their choice (like Nixon, whose **very** expensive campaign was paid for, by and large, by millionaires and corporate people) — and they expect "their" candidates to do things their way when elected. This is a republic, of course, which means we have the power to vote. But the power to vote doesn't seem to make a whole lot of difference. For example, when was the last time you had anything to say about food in an election?

We tend to think that if all Americans helped make decisions on things that really counted, America would look different. We've thought some about what might change in the way we make and eat food, and these are

some of the things we came up with. You probably have more ideas.

Let's start with advertising. What if we didn't have ads? For one, we'd save a lot of money, since the people who eat pay for the advertising in the end. For example, in 1966 the six biggest cereal makers spent \$100 million selling us cereal. (Since corporations write ads off taxes as business expense, we pay again for these ads because we have to pay the taxes they don't pay, too.)

Okay, no advertising. Then how do we find out about food? Ads rarely give us any useful information. Usually they are written to trick us into thinking that one product is better than another, when both are really of poor quality and are overpriced. Packages and cans don't tell us much either. Instead of confusing labels, we'd have clear labeling of the cost of each ounce, pound or other unit, the amount of ingredients and the vitamin, mineral and protein content. The time and space that now goes to advertising food in the media would be used to tell us about nutrition and



home economics. Imagine television spots on cooking vegetables or food for pregnancy!

Who would decide, if corporations didn't, what we should eat? People would. We could meet together in supermarkets and talk about what we want. We could elect people in our communities to food councils, which would make decisions about food based on feedback from shoppers, as well as nutritional and other essential information. Since we'd know more about food and what it does to our bodies, we probably wouldn't desire the hundreds of non-nutritional cereals and crackers now in the stores. Instead we would have ten or fifteen basic cereals, some hot, some cold, some with an oat base, some with a wheat and nut base. All of them would be good for us.

In our more efficient society, there would be no ad-people and fewer cereal makers—because there would be fewer kinds of cereals. But because the new society would meet needs the old society never met, we'd have a lot of work to do and there would be no shortage of jobs. For example, some people would serve on the food councils. Others would teach about nutrition, food cost, cooking and gardening in the education centers set up in the supermarkets and in the schools. People could work in the childcare centers in stores serving employees and shoppers or write t.v., radio and newspaper spots about good eating. Besides all this, we'd still have to make a lot of cereal! We would feel better doing work that was useful, rather than manufacturing itty-bitty crunchies so that someone makes a lot of money off poor quality food.

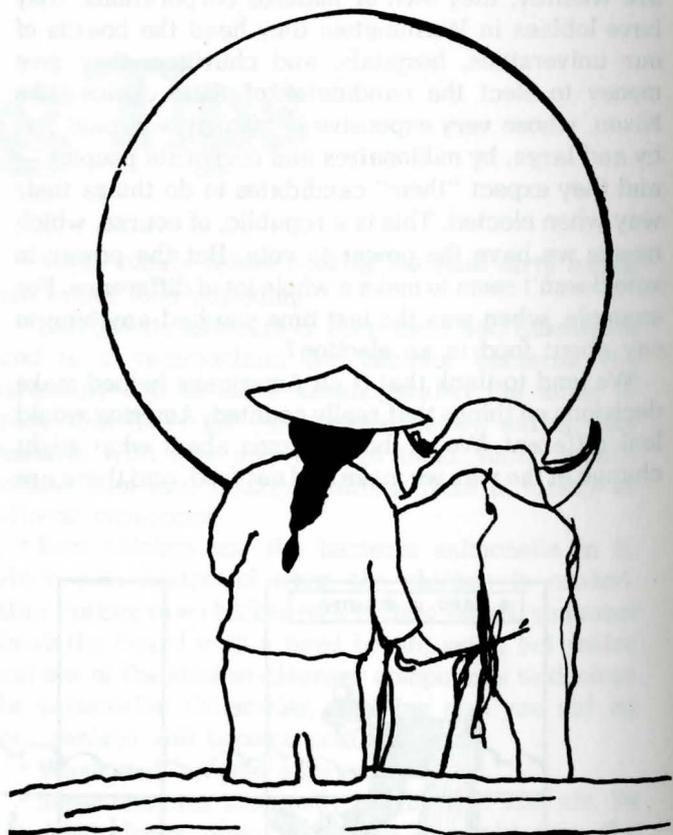
There would be very few additives in our foods, and these would be tested extensively **before** we ate them. Scientists would search for ways to protect crops from insects without the use of pesticides or would develop safer pesticides which could be removed before marketing. Also, we would be more willing to eat unsprayed produce after learning that "blemishes" due to small insect bites don't mean that produce is "bad." Or, for that matter, if we were taught they were okay, we would eat green oranges (that now get a dangerous orange bath) or unwaxed apples.

Nobody would go hungry because we'd grow enough food for everyone to eat. (We would not keep fields out of production to keep prices high.) Also everybody would have enough money to buy food. This is not an impossibility. We are a very rich nation—the only problem is that only a few have that wealth. For example, ten percent of the American population have about one-third of the income in the country, and 1.5% own about one-third of the stocks, bonds, plants and other investment assets (according to Gabriel Kolko in "Wealth and Power in America"). These people eat steak. Most of us work hard and get hamburger. Others can't get a job and get nothing. If we spread the wealth around, we'd spread the food around, too.

Food companies would be nationalized (owned by us

all) and run by people who worked in them, instead of being owned and run by a few wealthy people. And farm workers would run farms together instead of being hired by large landowners and paid low wages. Although this idea seems strange to us because it hasn't been tried in America, it has worked successfully in other countries, like China. Also, in many smaller ways it has worked here. In the Health Collective, for example, about eighty women make many decisions together on running a clinic and a storefront and doing health education work in local schools and neighborhoods, without having an owner or a boss. Of course, working out good ways of doing this has taken time and effort, but it has been well worth it. In Berkeley, there are several small businesses that are run collectively — a taxi cab company, a restaurant, a food store and several shops. In some collective operations the workers decide what jobs each person will do (often rotating undesirable work), what hours to work, or what fair prices and wages are (sometimes dividing money according to need). From what we've seen, we think that such collective efforts are possible on a much larger scale, and that both workers and consumers would benefit.

The food system and all other systems in the U.S. won't change by themselves. Remember that the food industry resists Food and Drug Administration suggestions and inspections; they refuse to make clearer labels; and they fight hard to keep untested



chemicals in food. We have to work constantly for the kind of society that we want: a society in which we **all** have a say about everything that affects our lives.

We have to start somewhere. Here are some concrete things we can do. Some will work; others may not work all of the time—but everything we do will show more people the true story behind food.

* Join food-buying cooperatives with neighbors and friends and buy directly from wholesalers. This way you will build alternatives to the supermarkets.

* Complain about poor quality food in supermarkets. Double check the scales in the markets. If meat is weighed in the tray, refuse to pay \$1.50 a pound for cardboard. If complaints are resisted, demonstrate, boycott or picket. Complain to the State Department of Weights and Measures. Sue by yourself or bring a class action suit on behalf of all shoppers. This will get publicity.

* If you find that certain markets, such as supermarkets in low-income areas, are consistently more expensive, or that their prices rise the day welfare checks come out, demonstrate or boycott.

* If you live in a community where surplus commodities are used, organize to improve the poor quality of the food; insist on whole grain rather than white flours, for example. If you live in a community where food stamps are used, organize to

keep people from being put off the food stamp rolls or to get more poor people on.

* Start or support alternative free food programs, like the Black Panther free breakfast program, hot dinners at churches or distribution of canned goods.

* Look into food programs at schools and insist on good food for kids. Look into food education in the schools and see that children are learning the facts.

* Start groups in your neighborhood to study food issues and try to spread the word, and to act on it together.

* There are city- or state-wide consumer action groups in some areas which you may be able to work with.

* Support the United Farm Workers by sending donations, medical supplies and office supplies to them at P.O. Box 62, Keene, Cal. or by working with their Boycott Committees, which are located in major cities across the country. (In the San Francisco Bay area, get in touch with them at 948 Haight Street.)

Since a lot of issues in this country have the same basic source, you can also help change the food system by working against the war, the oppression of minorities and women, or bad housing and working conditions. When we unite, there's nothing we can't do!

References

These are some of the sources we used in writing this booklet. Many are in paperback and not terribly complicated, so they're good for the "non-expert" without a lot of money to spend learning about food. Some aren't cheap and you might talk to your local library about getting them. Some of these books have long bibliographies, which will help you more if you really want to get into reading about food. It's also possible to get lists from the Department of Agriculture, the Food and Drug Administration and the U.S. Printing Office of literature about food that is free or pretty inexpensive. We also used local papers and nutrition magazines.

Most of our information on additives, pesticides, the Food and Drug Administration and the workings of the governmental agencies is from **The Chemical Feast** by James Turner, **The Poisons in Your Food** by William Longgood and **Silent Spring** by Rachel Carson. Their information is sound and helpful to an understanding of how the food indus-

try and agri-business operate, although we feel the problems in this area have much to do with the way our entire society operates, too. **A Consumer's Dictionary of Food Additives** by Ruth Winter is helpful in finding out what a chemical is doing in our food in the first place, and what it might be doing in our bodies after we eat it. Many more books, some of them in paperback, are coming out on the subject of pesticides and food processing.

The Supermarket Trap by Jennifer Cross describes what the title suggests: how supermarkets got so big, how much money the food industry makes and how, and explains how to avoid the "supermarket trap."

For a dollar you can get **Hunger**, put out by the Scientist's Institute for Public Information, 30 East 68th Street, NYC, which has information on national and international malnutrition. A good complement to that is **Living on the Earth**, put out by People's Press in San Francisco, that has a radical analysis of how hunger

happens. **Still Hungry in America** by Robert Coles is a picture book of people who are hungry and who talk in their own words about what it feels like—it's a beautiful book.

Understanding Food by Beulah Tannenbaum and Myra Stillman, and **The Nutrition of Physical Fitness** by Briggs and Callaway are two hardback books giving a general run-down on how the body uses food and what is good to eat, although they don't talk much about problems like pesticides, additives or monopolies in the food industry. **Practical Nutrition** by Alice Peyton is like the above, but comes in paperback. **Food for Life**, in paperback edited by Ralph W. Gerard, is a good beginning text explaining the chemistry of food metabolism in the body. We also used Adelle Davis's books, but found that in some instances she is dated—20 years back—and sometimes too anecdotal to be reliable. We also feel that many of her recommended dosages of nutrients are high and that she suggests an expensive high-protein diet that isn't necessary for most of us.

Diet for a Small Planet by Frances Moore Lappe, in paperback for \$1.25, tells about getting protein from non-meat sources. The first part of the book explains that eating as much meat as we do in America is unnecessary in terms of health and wasteful in terms of the ecology. The second part of the book has recipes showing us how to "complement" amino acids so that we get all eight amino acids at one sitting. (See our section on "Protein.") It's an invaluable book for vegetarians and a very good book for everyone else, although some of her estimates of protein values may be a bit high. We also used **Amino Acid Content of Foods** put out by the Department of Agriculture, Institute of Home Economics for information on protein. And for information on protein and vitamin and mineral, fat, carbohydrate, calorie and water content of foods, a booklet by the U.S. Department of Agriculture called **Composition of Foods** is helpful. It can be found at some bookstores for about \$2. **Recommended Dietary Allowances** by the National Academy of Sciences is also a helpful source of information on daily nutrient needs.

If you are pregnant or want to learn more about infant nutrition and food for mothers, take a look at Dr. Spock's books, **Food Becomes You** by Ruth Leverton, or a good booklet titled **Infant Care**, which can be ordered for twenty cents from the U.S. Government Printing Office. (These books assume, however, that mothers should be largely responsible for their babies, while we feel that other loving persons can be caretakers as well.) **Infant Nutrition** by Samuel J. Fomon is very technical but useful. The May 1970 **Drug Information Service Newsletter** from Alta Bates Hospital in Berkeley tells how different drugs affect an unborn or nursing child.

If you are working with people who are ill or are ill yourself, it's good to read about food and sickness.

(Most doctors know little about nutrition, and you usually can't rely on them as a source of information.) One of the best books in the field, and an excellent general nutrition text, is **Modern Nutrition in Health and Disease** by Wohl and Goodhart. **Nutrition and Diet in Health and Disease** by James McLester and **Clinical Dietetics and Nutrition** by F. P. Anita are good sources. Unfortunately these books are expensive, and sometimes you can only locate them in university libraries; ask public libraries to obtain them. Another possibility is **Let's Get Well** by Adelle Davis, although we have some of the same reservations about this book we have about her others.

We used an article in the September-October issue of **Nutrition** called "All Calories Don't Count . . . Perhaps" for information on dieting. You can get a lot of other things from the library on this subject, too.

For gardening and composting check **Grow Your Own** by Jeannie Darlington, a paperback.

We don't agree entirely with all the books we've listed, of course, but think that they are worth looking into. There are also other things we looked at, but don't list here. Generally if we couldn't find scientific backing for somebody's beliefs, we didn't use her/him in writing and we don't list the books. These people may be right in some instances, and in others they're wrong. We didn't want to give out as advice, though, chancy information that can't be proven to be correct. Unfortunately not enough research has been done on nutrition: how, for example, food might be used to cure illness or what the difference is between crude and refined honey. Sometimes the answer to this lack of information is to do guesswork, which we don't put down totally. But when following advice that is based on guesswork, take it easy. And let that advice go if you begin to feel bad in any way. **And always** be sure you're getting enough protein, fat, carbohydrate, vitamins and minerals no matter what you do.

