We have become so artificial in our habits of thinking that it almost invariably occurs that when a discovery of the value of some type of food is made, we think immediately of some artificial way to secure the benefits of the discovery. We seem to be afraid of natural foods. Food manufacturers find us easy dupes and sell us all manners of patented foods that are guaranteed to be "just as good" as or even better than the natural product. Another group exploit sea weeds as supplements to our diet and sell enormous quantities of these unpalatable substances.

When false nutritive elements such as iron or synthetic vitamins, are added to a food of which they are natural constituents but from which they have been removed in the processing of these foods, these foods are said to be restored. When such pseudo-food factors are added to foods in which these elements exist naturally in sparse quantities, the food is said to be enriched. When elements are added which do not naturally occur in the food at all the food is said to be fortified. When one food is used to enrich another, the food is said to be supplemented. Two foods that enrich one another are said to supplement each other.

For the most part, restoration, fortification and enrichment of foods is a farce. The inorganic lime salts, iron salts, etc., used in these processes are non-usable; the synthetic vitamins employed for these purposes are of no value. Supplementing foods is a mere game. Since no one ever lives on but one or two foods and since no one food, is of and by itself, adequate to meet the nutritive needs of man, we live upon a diet composed, at all times, of a variety of foods. We need only to make sure that the tout ensemble of the foods we consume meets the tout ensemble of our nutritive needs and should cease the parlor game of supplementing one food with another. Back to natural eating, should be our rallying cry. Are we such fools that we are going on forever removing from natural foods essential nutritive factors and then replacing them with "Just as good" Synthetic substances? Shall we forever bow the neck to the yoke of commercialism and a false science created by this same commercialism?

After going to great lengths to spoil nature's food products we seek to supplement them with brewer's yeast, wheat germ, black molasses and yogurt made from boiled milk. We eat white bread, white sugar, pasteurized milk, canned vegetables, etc., and expect to render such a diet adequate by the addition of codliver oil or other fish oil, a small amount of orange juice, or rice polishings. We cook our spinach until it is black and mushy, boil our cabbage until it is unrecognizable, peel and boil our potatoes, bake our apples and drown them in a syrup made of white sugar and then eat brewer's yeast and convert our intestinal tract into a beer vat. Or, we eat black molasses which is as efficient as brewer's yeast in producing
fermentation.

Martin Frobisher, Jr., in his Fundamentals of Bacteriology says that yeast cells "synthesize several vitamins which are of great value in the maintenance of health" and that "yeast may therefore be taken if the diet is otherwise deficient in these vitamins." But he adds that "normal foods, in good variety, including eggs, milk, butter, vegetables such as spinach and lettuce, whole cereals and citrus fruits, furnish practically everything offered by yeast, and in a more rational form."

The fact is that a good variety of natural, unprocessed, uncooked foods furnish everything offered by yeast and much that yeast does not offer. That they furnish these things in a "more rational form" hardly needs be added. Why, then, say yeast may be taken, "if the diet is otherwise deficient in these vitamins?" Why not resort to the more rational forms of dietary substances to make the diet adequate?

It was found by certain British and German investigators that the addition of fresh carrot juice or raw spinach juice to the diet of children suffering with severe scurvy results in recovery. The addition of fresh vegetable juices to the diet has given excellent results in many cases of malnutrition. The same is true of fruit juices. It is amusing to see the "discovery" of their value trumpeted to the world as a "brilliant medical discovery," thirty years after it was rejected by the medical profession as nonsense of the faddists and quacks. We faddists and quacks were not dismayed by their taunts and are now triumphantly right.

Changes in the urine prove positively that metabolism is unproved by the liberal use of fruits and green vegetables or their juices. The urine finds particularly indicate a more complete protein transformation and oxidation. The improvement in adults is not so quickly gained as in the young, but is finally by just as positive. These juices are valuable not alone in malnutritional states in children, but also in chronic diseases in children and adults. Their excesses of bases supply needed basic salts to the body and enable it to sweep itself free of acids. But the juice of no food is as valuable as the food itself.

The child-feeding tests carried on by experimental nutritionists are merely tests of supplemental feeding. No great or radical change is made in the conventional, inadequate diet. They merely supplement the diet the children are eating, with milk or fruit juice or some other such food and compare the children so fed with those not so fed.

Many such tests have been made on animals and many on school children. A California school test compared milk, oranges and milk and oranges as supplements to the regular diets the children were receiving, with the following results;

<table>
<thead>
<tr>
<th>Expected gain</th>
<th>Actual gain</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>in pounds</td>
<td>in pounds</td>
<td>excess gain</td>
</tr>
<tr>
<td>No supplemental food</td>
<td>.54 .69 .28</td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td>0.46 0.95 106</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>0.58 1.40 141</td>
<td></td>
</tr>
<tr>
<td>Milk and Orange</td>
<td>.48 1.07 122</td>
<td></td>
</tr>
</tbody>
</table>
It will be noted that oranges alone gave the greatest gain and that oranges and milk gave greater gains than milk alone, although oranges and milk did not equal oranges alone. Although this is disputed, I contend that this test shows that oranges are better supplements to the average diet than is milk. This does not mean that oranges as an exclusive article of diet is as complete food as milk as an exclusive article of diet, but merely that as a supplement to the inadequate diet conventionally fed to children oranges are superior to milk.

There are two other important particulars in which these tests are defective. First, they are never carried out over a sufficiently long period of time to give ultimate results; and, second, they deal with children en masse and the reports are mere averages. Individual differences are submerged. In the reports the great gains made by a few on the supplemental feeding submerge the actual losses made by others.

In reporting averages for those on the non-supplemental diet, no account is taken of the individual differences shown by the children in this group. The conventional diet is not uniform. No two families, and no two individuals, eat exactly alike. No adequate attention is given to the individual diets consumed by the children in both groups.

The children on the supplemented diet show on the average some advantage (some improvement in health or in the rate of growth) over the average of the children on the non-supplemented diet. While such experiments point to possibilities, they certainly not establish an ideal method of feeding. Radical changes in the conventional diet and not mere supplements thereto are essential.

It is unfortunate that the discovery of the value of fruits and vegetables or their juices has not lead to a revolutionizing of our feeding and eating practices, but to an endeavor to supplement the inadequate diet now employed. There is altogether too much effort to "improve" the conventional white-flour-white-sugar-mashed-potato diet by adding a few drops of cod-liver oil or a few spoonfuls of tomato juice or orange juice or a few powdered sea weeds.

It is urged that "even unsuitable food can be favorably influenced by the addition" of so-called "food adjuncts." Commercial houses and dietitians have been quick to take advantage of this claim. Doctors and false dietitians have used this as a barrier to true food reform. These adjuncts or accessories may be manufactured, prescribed and sold at large profits. It was shown in a previous chapter that it is impossible to eat sufficient "offsetting" foods to completely compensate for the deficiencies of a predominantly denatured diet, such as is commonly eaten in this country.

Supplements of the right kind are useful to those who are situated so that they cannot get a proper diet, or to those who are unable to digest and assimilate certain essential foods. But a really correct dietary requires no supplements. It is complete in itself and fully adequate to meet all the food needs of the body. Today we are being offered "accessory foods" rather than food reform. Commercial firms have placed their "food accessories" on the market to be taken in doses of a spoonful or more at a time, just like drugs. The "accessory foods" are supposed to adjust an "illbalanced diet." Why not balance the diet? We need to thoroughly revolutionize and completely reform our diet.
One house advertises that its product "is not a substitute, but is the quintessence of the green leaf in a palatable and assimilable form." This is not a dietetic, but a drug conception. No process can take the "quintessence of the green leaf" and give it to us so that it will be as valuable as the green leaf. Besides, the green leaf exists in a palatable and assimilable form.

Dr. Oswald says: "Ours is an age of extracts. We have moral extracts in the form of Bible-House pamphlets; language-extracts in the form of compendious grammers; exercise extracts under the name of gymnastic curriculums; air-extracts in the shape of oxygen-bladders, any a vast deal of such food-concentrations as Liebig's soup, fruitjellies, condensed milk, and flavoring extracts. But, somehow or other, the old plan seems after all, the best."

Artificial food preparations are advertised to contain just the food elements required and to contain these in just the right proportions. This claim has weight only with those who do not know that the makers of the foods do not know what the right proportions of these elements are. One firm advertises that one of its "accessory foods" is "concentrated to more than 400 times the potency of the fresh, raw vegetables from which it is derived." There is no reason to believe that such concentration can be helpful. Man is correlated with and adapted to foods as Nature - the plant kingdom - produces them.

Berg says: "All artificial (food) preparations are more or less unbalanced, simply because the fundamental knowledge necessary for their manufacture is entirely lacking. Only living plants can give us all the factors necessary for the maintenance of health." He further says: "physiologically, we have not the slightest idea how many in what proportion mineral substances are required by the human being. It is identically the same with vitamins."

Consistent with our artificial thinking habits one company that produces and sells prepared spinach juice, after supplying much unimpeachable testimony showing the great value of spinach, supplies four reasons why we should reject fresh spinach as unsuitable, and should employ their processed and inferior product instead.

The shelves of the so-called health food stores of the land are groaning under their load of bottled, canned and powdered foods and food juices; each one guaranteed to be good for dozens of so-called diseases; each one a necessary adjunct to our diet. Their minerals and vitamins are said to be concentrated so that only small amounts of them supply the deficiencies in the conventional diet.

Instead of adding bottled spinach juice, powdered sea weeds and other such inferior products to the conventional, deficient diet, we need to revolutionize our diet. The real health foods do not come in cans, bottles, boxes and capsules. They are grown in garden and orchard, are irradiated by the sun, rather than by an ultra-violet a, lamp, and are more suited to the nutritive needs of our bodies as they come, ready-made, from the lap of mother nature, than after they have been dried, powdered, canned, bottled and cooked.

Superior nutrition can come only from a fundamentally correct and fully adequate dietary and no amount of supplementary additions to our, at present, largely
denatured diet can give us superior nutrition.