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DIET - THE UNDERWEIGHT CHILD

by

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An underweight child is almost certain to show signs of malnutrition to a greater or less degree.

How Widespread is Malnutrition?

1. One third of the young men were rejected from the army in the World War because they were not physically fit. Malnutrition in early life was probably a factor in bringing about this condition.
2. Surveys of the school children throughout the country show that fully one half have physical defects.
3. One-third of all school children examined have been found underweight. Dr. Thomas Wood places the estimate of the nations school children that are underweight at 3,000,000 to 5,000,000.
4. Underweight and malnutrition in children is found among both rich and poor families.

"Signs and Symptoms"

Well Nourished Child	Malnourished Child
1. Measures up to racial and family standards for his age in height and weight.	1. Below the racial and family standards for his age in height and weight.
2. Good color - no dark circles under eyes.	2. May be pale, delicate, wax-like, sallow, muddy, dark circles under eyes.
3. Bright eyes.	3. Expression of entire face lifeless and dull.
4. Smooth, glossy hair.	4. Hair rough like under-fed farm animals.
5. Carriage good, step firm and elastic.	5. Round shoulders, "wing" shoulder blades, hollow chest, decayed teeth, adenoids enlarged or diseased tonsils.
6. Muscles well-developed.	6. Usually thin but may be fat and flabby.
7. Happy and good natured.	7. Extremely irritable, difficult to manage. Often abnormally afraid of strangers.
8. Full of life and animal spirits.	8. Animal spirits lacking, listless. Tires easily.
9. Constantly active both physically and mentally.	9. Poor attention and concentration, absence of inquisitiveness and mental alertness.
10. Sleeps sound.	10. Sleeps lightly, nervous, restless.
11. Appetite and digestion good.	11. "finicky" about food.
12. Bowels regular.	12. Tongue coated. Bowels constipated.

Malnutrition is a relative term. A child is said to be malnourished when one or more of these symptoms are very marked. An underweight child is almost certain to show malnutrition. A child may not be underweight but be below the standard in some other respect. This condition might lead later on to a malnourished condition. These children need as careful watching and feeding as the underweight child.

Causes of Malnutrition

1. Presence of physical defects.

Often underweight children are found to have enlarged or diseased tonsils, adenoids, poor hearing, or eyesight or other physical defects which retards their growth either physically or mentally or both.

2. Lack of parental control.

Children are allowed to eat what they want regardless of whether it is what they need for health and growth.

3. Children often become over-fatigued.

The work at home, at school, in study and play together with social life may overtax a child and prevent his growing normally because his body cannot make the best use of the food eaten.

4. A child may not eat enough foods.

5. A child may have formed the wrong food habits due to ignorance on the part of the parent as to the right foods for health.

6. Wrong health habits may be a factor in the undernourishment of a child.

Results of Malnutrition

1. The malnourished child is irritable and hard to live with.

2. The malnourished child is in-active often and forms lazy habits of work and play.

3. A malnourished child cannot resist disease.

4. The malnourished child is mentally slow - often, far below his grade in school. Extreme cases show mental deficiency.

5. The malnourished child has not an equal chance with the well nourished child to grow into as efficient man or woman.

Agencies which are helping to prevent and correct malnutrition

1. Examination of all school children by the county nurse and recommendations made for the correction of physical defects. This is an effective means of giving help to many children.

2. The co-operation of the teacher and parents in training the children in good food and health habits. The introduction of the Modern Health Crusade into a school, results in a better standard of health among the children.
3. The introduction of the hot lunch at school at noon means better physical and mental condition among the children. This is invaluable after a physical examination by the county nurse which has resulted in a correction of the physical defects.
4. A mid-morning and mid-afternoon lunch of milk at home or school often results in a better physical condition where a child is underweight.
5. Nutrition classes for children are widely used to correct physical defects and teach good food and health habits.
6. Parents are realizing that the best results can be secured by insisting upon children eating the right food and practicing the right habits of health every day.

Feeding the Underweight Child for Health

General Rules

1. Serve food that is attractive.
2. Have meals and lunches at regular hours.
3. Cut down on the amount of foods high in cellulose and eat the more concentrated foods, cream, butter, milk, eggs, dried fruits. The root and leafy vegetables can be increased in food value by serving them with butter and cream.
4. A glass of milk, small bowl of bread and milk or fruit will serve as an excellent lunch. If too much is served at lunch time the desire for the regular meal may be interfered with and the hoped for gain in body weight destroyed.
5. A glass of milk may be used at bedtime.
6. To get some idea of the amount to feed to gain in weight keep an exact record for a week of what the child eats to maintain his present weight.
7. Three glasses of whole milk added to the regular diet each day will probably make him gain one-half to one pound a week if there are no physical defects.
8. A thick slice of buttered toast, a potato with butter and gravy and a banana or apple or orange will probably bring the same rate of gain.

An underweight child must have:

1. Extra rest every day.
2. Regular hours of work and play.
3. At least ten hours of sleep.

4. A full bath once or twice a week.

5. One bowel movement every day.

A well balanced diet must be fed every day:

1. Milk -

"Very careful studies led ----- to the conclusion that whether at three or at thirteen years of age the child must be fed a quart of milk per day to insure the optimum storage of calcium and phosphorus and the best development of bones and teeth".--- Dr. H. C. Sherman.

Milk Contains -

- a. Protein - 98% of milk protein is digested and absorbed by the body.
- b. Calcium and phosphorus for bones and teeth.
- c. Iron - small amount but of excellent quality - needed in blood supply.
- d. Vitamins (4) needed for health and growth.

2. Fruits (fresh, canned, dried and tomatoes)

- a. Fruits contain minerals.
- b. Cellulose - which helps to prevent constipation.
- c. Fruits are alkaline in reaction and so help to counteract the reaction of a meat diet.

3. Vegetables other than potatoes.

- a. Green leaf vegetables contain vitamins.
- b. Vegetables contain minerals.
- c. Vegetables are alkaline in reaction.

4. Protein food (meat or egg or fish or cheese) needed for the repair and building of body tissue.

5. Cereals - (fuel foods)

- a. Mineral is inadequate.
- b. Vitamin are "
- c. Protein is "

6. Water (not a food)

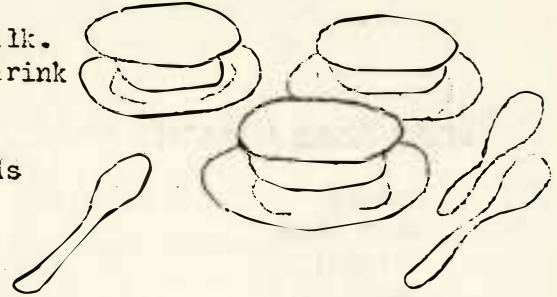
Four to Six glasses every day.

REFERENCES:

Use and Preparation of Food - Federal Board for Vocational Education.
What is Malnutrition by Lydia Roberts.

4. Ways in Which to Use Milk.

Milk may be used as a drink or whole on cooked foods or it may be used in the preparation of foods. The nutritive value of milk is the same in the cooked foods as it is in the uncooked, but the vitamin content is somewhat destroyed by cooking. This is the reason babies are given orange juice when they are fed on cows milk that has been heated - to replace the vitamins destroyed by the heat.



Milk - Vegetable Soup



Bread and Milk Makes Us Grow.

DRINK MILK

- Chocolate
- Cocoa
- Eggnogs
- Lemon Whey
- Milk Shakes
- Plain

EAT MILK

- Bread and Milk
- Cereals and Milk
- Crackers and Milk
- Hulled Corn and Milk
- Mush and Milk
- With Fruits
- With Puddings

USE MILK IN COOKING

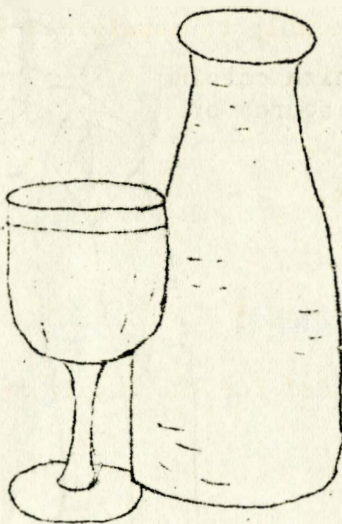
Creamed and Escalloped Dishes

- Egg
- Fish
- Macaroni
- Meat
- Rice
- Spaghetti
- Vegetable
- Vermicelli

Cakes and Cookies

Pies

- Chocolate
- Custard
- Lemon
- Pumpkin
- Squash



Drink Milk!

Sauces

- Cheese
- Chocolate
- Cream
- Foamy
- Milk Gravy
- Salad Dressing
- White

Freeze Milk

- Ices
- Ice Cream
- Milk Sherbets

Cream Soups

- Asparagus
- Bean
- Carrot
- Cauliflower
- Celery

Uses of Sour Milk

- Biscuits
- Brown Bread
- Cookies
- Cottage Cheese

USE MILK IN COOKING

Cream Soups (cont'd)

- Cheese
- Lima Bean
- Oatmeal
- Onion
- Pea
- Potato
- Rice
- Spinach
- Tomato

Chowder

- Clam
- Corn
- Fish
- Vegetable

Stews

- Clam
- Lobster
- Oyster
- Scallop

Puddings

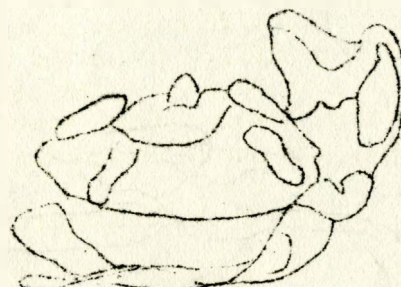
- Blanc Mange
- Bread
- Cabinet
- Chocolate
- Corn
- Corn Starch
- Cottage
- Custards
- Indian
- Junket
- Rice
- Steamed
- Tapioca

Breads

- Bread, White
and Brown
- Muffins
- Milk Toast
- English Monkey

Uses of Sour Milk

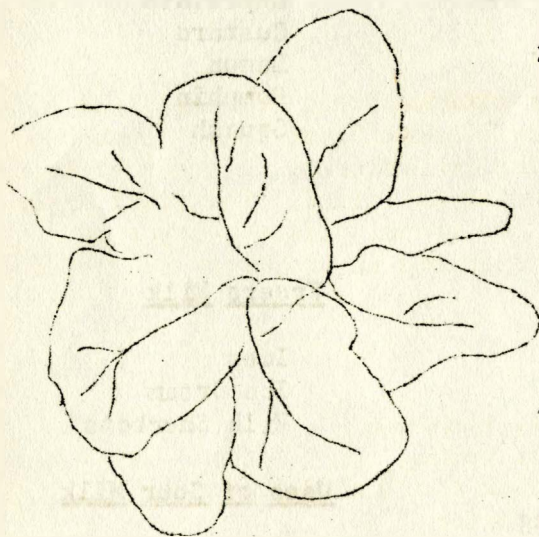
- Doughnuts
- Gingerbread
- Griddle Cakes
- Salad Dressing
- Waffles



Cereal with Milk and Fruit.

B. Vegetables other than potatoes and fruits should be eaten at least once a day.

1. Most vegetables and fruits furnish calcium and iron. Spinach is the best source of iron.

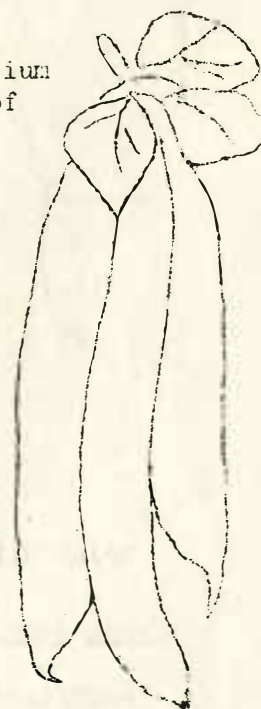


Spinach

2. The green leaf vegetables furnish vitamins in abundance.

3. The vegetables and fruits are alkaline in their reaction in the body neutralizing the acid reaction of the protein foods.

4. Vegetables and fruits prevent constipation because of the cellulose tissue which they contain and other substance which are laxative in nature.



The following recipes will be of help in adding more milk to the children's diet.

WHITE SAUCE

	Fat	Flour	Milk	Salt
Thin: Cream soups, milk toast	1 tb.	1 tb.	1 c.	$\frac{1}{2}$ ts.
Medium: Vegetables, gravies, sauces	1 tb.	2 tb.	1 c.	$\frac{1}{2}$ ts.
Thick: Vegetables, meat, fish	1 tb.	3 tb.	1 c.	$\frac{1}{2}$ ts.
Very thick: Croquettes, mixtures	1 tb.	4 tb.	1 c.	$\frac{1}{2}$ ts.

Different methods of combining the white sauces are used. The fat and flour may be well blended, placed on the end of a spoon and melted off in the hot milk.

The fat may be melted. The flour is added second and the hot milk last.

The milk may be heated. The flour is worked to a paste in a small amount of the milk. The heated milk is added, slowly, to the paste stirring constantly. The paste may be added to the hot milk, but there is a greater possibility of having a lumpy white sauce unless the paste is quite thin, the milk is not too hot, the paste is added gradually and the milk stirred constantly.

Any of the following foods are excellent creamed dishes:

celery	peas	chicken
greens	cabbage	cheese
corn	potatoes	fish
onions	carrots	dried beef
hard boiled eggs		ham

Creamed foods are often served on toast. A slight change in the seasoning will often result in an entirely new dish; chopped parsley, onion, pimentoes, celery, grated cheese.

ESCALLOPED DISHES

The same food products that can be used for creamed dishes are excellent scalloped. The same white sauce may be used. By measure about twice as much material will be needed as sauce. The baking dish is buttered. A layer of bread crumbs, and food is alternated until the baking dish is filled. The final layer is of buttered bread crumbs. Bake until crumbs are brown. Often a layer of meat and a vegetable is alternated with the bread crumbs in preparing scalloped dishes.

Scalloped Apples

2 c. soft bread crumbs	$\frac{1}{4}$ ts. cinnamon
2 tb. butter	$\frac{1}{8}$ ts. nutmeg
3 c. apples	$\frac{1}{2}$ lemon rind and juice
$\frac{1}{2}$ c. sugar	$\frac{1}{2}$ c. water

Cut the apples into small pieces and mix with the other ingredients. Alternate the apple mixture with the bread crumbs in filling the greased baking dish. Cover with buttered crumbs. Bake 40 minutes. Serve with whipped cream or hard sauce.

Bananas may be substituted for the apples if the water is omitted and one half teaspoon of cinnamon and one eighth teaspoon of cloves is added. Bake fifteen minutes.

Creamed Soups

Creamed soups are probably more attractive when the vegetables have been cooked until tender, mashed fine or put through a sieve. The vegetable pulp is reheated and added to the white sauce. Any vegetable or meat may be used for cream soups.

Tomato Soup

One fourth teaspoon of soda is added to tomato soup for every pint of tomato pulp and juice. Strain, add the hot tomato the scalded milk, slowly. Combine the two just before serving.

If the milk curdles in a solid chunk when making tomato soup you are probably using milk which is unfit for food. Look into the health and care of the cows at the dairy from which the milk is purchased.

Chowders

3 c. milk	8 soda crackers
2 c. vegetable or meat	1 small onion
4 tb. fine cut salt pork	salt
$\frac{1}{2}$ c. rice or	pepper
4 c. of fine cut potatoes	

Try out the salt pork. Brown onion in fat. Add the vegetables or meat with enough water to cook. When vegetable is tender add the milk and cracker. Serve hot.

Excellent chowders can be made by using sweet corn, potatoes, barley, rice, carrots, fish or ground meat.

SOUFFLES

Use the following white sauce for plain souffle - one cup milk, three table-spoons fat, four tablespoons of flour, one teaspoon salt and two to four eggs. Pour the well cooked white sauce over the egg yolks beaten until thick and lemon colored. Mix carefully. Cool and then fold in the egg whites which have been beaten until stiff and dry. Bake slowly in buttered dish.

Cheese Souffle

Add one half cup grated cheese.

Meat Souffle

Add one half to one cup of chopped meat.

Vegetable Souffles

Any kind of vegetable may be cooked, cut in small pieces or mashed and strained. Use one and a half to two cups of cooked vegetables.

Cocoa

3 ts. cocoa	1 1/3 c. scalded milk
3 ts. sugar	salt
1/3 c. boiling water	

Combine dry ingredients, Add the boiling water stirring constantly. Cook ten minutes in the double boiler at boiling temperature. Add the scalded milk and beat with dover egg beater.

An egg may be beaten until light. The hot cocoa is added gradually to the egg beating constantly. Serve hot.