Nursery Health Tracts, No. 2.

Diet for Young Children.

Price Five Cents.

THIS series of "Nursery Health Tracts" is designed to meet the demand for various special articles, on important subjects, which have appeared in BABYHOOD. Articles thus reprinted will be furnished at 5 cents each, or $3 per hundred, postpaid.

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THE FEEDING OF OLDER INFANTS AND YOUNG CHILDREN.

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IT is the purpose of the present article to proffer a few hints upon the feeding of children from one year old until they are able to adopt the varied diet of the family, at from two-and-a-half to three years of age. Up to one year all children should, of course, have a mother's milk; and for those who are denied this blessing, previous numbers of BABYHOOD have given due advice. Until this time is reached all is plain sailing: but henceforth many mothers realize the great need of help.

Careful attention to feeding during the second year is quite as important as during the first, as a glance at the following statistics will show. In looking over my cases of summer diarrhœa for the past few years, I found that, of over four hundred cases, nearly sixty per cent. of the whole number occurred be-

tween the ages of six months and two years, while only twelve per cent. occurred under six months. The most common exciting cause of the disease was improper food and improper feeding.

"But," says some mother, "I don't need any dietetic rules for my baby of eighteen months or two years. He eats everything, and is perfectly well."

I have had quite a large experience with these children who "ate everything" and seemed to relish it. I have followed a number of them to their graves as the ultimate result of such unreasonable and inconsiderate practices. A child, if strong naturally, may go on for months apparently thriving, in spite of being allowed to "eat everything." But sooner or later —usually sooner—the penalty is paid in a severe attack of inflammation of the stomach or bowels which may cost the child's life, or else lay the foundations for a chronic dyspepsia which lasts through life, causing a feeble constitution and unnumbered privations. We judge of the suitableness of a diet, then, not by the few who may do well, but by the many who do badly. The same applies to certain of the foods sold. One mother's child has thriven under it; hence she advocates this as the one, and the only one, of any value.

This brings us to the point that not all children do equally well upon the same diet,

supposing this to be a good one. Differences in constitution and in temperament come in and make it impossible to tell beforehand whether or not certain articles will agree. The only proof is that of a trial in each child, carefully and intelligently made. It often happens, especially in children who are suffering from diarrhœa or from disordered digestion, that a great many trials must be made before the proper thing is found for the particular child. But there is no other way, and we may be sure that in the great majority of cases success will crown our efforts.

In what follows let it be understood that we are speaking only of children who, if not perfectly well, at least are not sick in any ordinary sense of that term.

The Tests of a Proper Diet.

1. A child should gain steadily in weight—not necessarily rapidly, but steadily. To ascertain this nothing can take the place of the scales. A child, after the first year, should be weighed regularly at least once a month. When it ceases to gain, and more, if it begins to lose, we may be sure that something is wrong, and it is safe always first to suspect the food or the feeding.

2. The flesh should be firm and solid, not flabby. Many of the foods containing starch or cane-sugar in considerable quantities pro-

duce fat in abundance; but unless increasing strength comes with the increase in size, it should not be considered a sign of health.

3. Teething and walking should progress steadily. The period of walking will depend something upon the child's peculiarities—one beginning at one year, and another at sixteen months; and yet both may be healthy. If, however, the child, although large and heavy, is not only backward in walking, but does not cut his first teeth until he is a year old, we must investigate carefully to see if other signs of rickets are not apparent, such as bowing of the legs, sweating of the head, etc.

4. Frequent attacks of colic, vomiting, and diarrhœal movements, with lumps of undigested food in the passages, should be looked upon as positive proof that the food given is not agreeing with *this* child, whatever it may do for others.

5. Lastly, a healthy skin and quiet, peaceful sleep. The most frequent cause of disturbance in either case is the food.

Causes of Failure in any Diet.

Here again, as happens so often in caring for children, it is not only what we do, but *how* we do it, which makes all the difference between success and failure.

First, the *manner of feeding:* it should be neither too rapid nor too frequent. It is

just as important in the case of children as with adults that the whole meal be not swallowed within five or eight minutes. Many people's idea of feeding a young child, especially if its food be fluid or semi-fluid, is that the process differs essentially in no ways from that of filling a jug through a funnel; that all that is required is to pour in until the receptacle overflows.

Next, the *frequency of feeding* is largely a matter of habit with a child; it can be trained to almost anything with a little care. During the period which we are considering most children do better when the interval during the day is not more than four hours. This would give, from 6 A.M. to 10 P.M., room for five meals. It is very important that nothing whatever be given between 10 P.M. and 6 A.M. It is, with few exceptions, the fault either of mothers or nurses if children require night-feeding.

I cannot emphasize too strongly the importance of *regularity;* without it nothing can be accomplished. Nor can I say too much in condemnation of the custom of feeding between meals upon crackers and cookies. For every minute of quiet obtained by such means hours of fretfulness are the price. Children are often thirsty; then drink, but not food, is required, and should be given. It is amazing what things a child's stomach can master if only it be given

time. But if fresh work be put upon it when its first task is only well begun, it can never rest, and soon refuses to work at all. It follows the example of the laboring classes when they are overworked—it strikes. And then much time and effort are required to settle the difficulties which exist.

Another frequent cause of trouble is the *improper preparation of food*. The food must be fresh, and freshly prepared for each feeding. Messes that have been "warmed over" should never be given. Great care especially should be exercised in regard to the milk given, where this forms a prominent part of the diet, as, indeed, it should always do. I recently saw in an institution in this city every one of twenty-three healthy children occupying a ward attacked in a single day with indigestion and diarrhœa from eating milk which was found to have been unfit for food. Milk should never be allowed to stand about the room in open vessels. In cities it should be kept upon ice until it is needed for each feeding; and in the country in as cool a place as possible. In all places it should be anywhere but in a room used for sleeping, sitting, or living generally.

What has been said in regard to milk is true of all the foods prepared with milk, of all broths, soups, gruels, etc. In warm weather this is, perhaps, the most frequent of all causes

of all serious disturbance of the stomach and bowels.

Overfeeding, also, is a very common cause of trouble. It is very often the quantity and not the quality of the food taken that is the cause of its disagreeing with the child. Too much at once is likely to be taken, if the child be fed rapidly, or if the interval of feeding has been prolonged to five or six hours. Children are often stuffed with food when they are only thirsty. Water should be frequently given at all ages and in proper quantities.

No definite rules can be laid down as to the number of tablespoonfuls or cupfuls that a child may take at a given age. Children differ as much as do grown people in this particular. The normal desire of the child is, perhaps, the best guide. But great care and judgment must be used in each case by the mother herself. In any case, if a child vomits within fifteen or twenty minutes after feeding, it is pretty safe to infer that the quantity has been too great. (Children often vomit or regurgitate from want of quiet after food; retaining the food perfectly if they sleep after it, vomiting if dandled or allowed to play.)

The points enumerated above should all be carefully considered before a radical change in the diet is made; for, in a large number of instances, the causes of failure are to be found here, rather than in the articles employed.

Forbidden Articles.

The following are *improper articles of food for a healthy child under two-and-a-half years, under all circumstances:*

Meats.—Ham, sausage, pork in any form, salt fish, dried beef, corned beef, goose, duck, stewed kidney, liver and bacon, dressing from all roast meat, and all meat stews.

Vegetables.—Potatoes except when roasted, cabbage, raw celery, raw or fried onions. radishes, cucumbers, tomatoes raw or cooked, beets and carrots.

Bread and Cake.—All hot bread or biscuits, rolls, etc., buckwheat-cakes, all sweet cakes, especially those warm or containing dried fruits, or those heavily frosted.

Desserts.—All nuts, candies, dried fruits, raisins, etc., apple-sauce, preserves, and pies.

Drinks.—Tea, coffee, chocolate, wine, or beer.

Fruits.—Bananas, all fruits out of season, all stale fruits, especially in cities and in summer. Grapes are objectionable only from their seeds. With most other fruits it is *quantity* which makes them injurious.

Permissible Articles.

Articles of food allowable for children from one to two-and-a-half years:

Milk should be the basis of the diet. A stout, well-developed infant should be allowed from

a pint and a half to two pints and a half a day, according to the age and the amount of other food taken. In the country pure cow's milk, and that from a number of cows, mixed, rather than from a single animal. This is the universal testimony of the best physicians, although a popular prejudice exists in favor of the milk of a single cow. In cities where pure fresh cow's milk is not to be had, the condensed milk delivered fresh from the wagons daily is to be preferred. All forms of canned condensed milk have this objection, that a considerable quantity of cane-sugar has been added to preserve it. While this often causes a rapid increase in fat in the child, it cannot on the whole be recommended, as it certainly predisposes to attacks of colic, indigestion, and diarrhœa, and, many good authorities believe, to rickets also. Still, it must often be used as the best food that can be obtained.

Meats should not form any prominent part of the child's diet until he has most of his teeth, which with the majority of children means about eighteen months. Before this meat should be given very sparingly, finely bruised, minced, or scraped. Until a child has passed his third year, once a day is often enough for meat to be given. The meats allowed are roast beef or beefsteak, both rare; white meat of chicken or turkey, well done; rare roast lamb and mutton-chop. If fish can be obtained fresh, it may

be given in small quantities, broiled or boiled, never fried. The only objection to it is the bones. Salt fish should never be given. Raw oysters agree well with some older children, but under two-and-a-half years they had best be regarded with a wholesome distrust. No fried meats should be given.

Vegetables, as a class, are to be avoided in any considerable quantity until the second year has been passed. The potato is one of the most injurious as ordinarily used. It is not so harmless as it looks. It should never be given more than once a day, and then it should not form the principal part of the meal. It should be given roasted, never stewed, fried, or boiled, and best with the juice of roast beef or lamb—*i. e.*, "platter gravy." More mothers who are intelligent and thoughtful err in regard to potatoes than concerning almost any other article of the child's diet. Potatoes should *never* be bolted, even if mashed. Other vegetables which may be allowed to children over eighteen months are asparagus, string-beans, fresh peas, and boiled onions, all well cooked and entirely fresh, and possibly lettuce.

The Cereals and Starchy Foods, although used sparingly or not at all during the first year, after this time should form throughout childhood an important part of the diet. The most valuable ones are oatmeal, wheaten grits, arrowroot, sago, barley, rice, wheaten flour, and

corn-starch. It is a decided advantage to have a large number of articles of this class, to get some variety in the diet. It is of the utmost importance that all these should be thoroughly cooked. Arrowroot is the most easily digested, and should be selected in case of a delicate child with feeble digestion. Oatmeal and wheaten grits are especially valuable where there is a tendency to constipation. Rice and barley may be used to add to soups and broths, or the latter may be made into a jelly to be added to milk. The following is Dr. Eustace Smith's mode of preparing barley jelly: Two tablespoonfuls of washed pearl barley and a pint and a half of water boiled slowly down to a pint in a saucepan; strain away the barley, and allow the liquid to set into a jelly.

Wheaten flour may be used with advantage prepared in the following way, known as the "flour ball:" A pound of "entire flour" is tied up in a pudding-cloth and boiled steadily for twelve hours. When cold the outer covering is cut away and the hard interior is reduced to powder with a fine grater. By this process the greater part of the starch has been converted into dextrine, so that it can be readily digested even by a very delicate stomach. Many of the foods sold at high prices, under high-sounding names, consist of little else than wheat-flour in which this change of the starch into dextrine has been accomplished. A heaping teaspoonful

of the powder thus obtained should be rubbed up with a little cold milk to the consistency of cream, and then a teacupful of hot milk added with stirring over the fire. This will be found often to do exceedingly well with infants just weaned, and may be used twice a day.

In all of the articles of this class care should be taken not to use much sugar. Most of them are best taken without any. All should be given slowly, and children taught and encouraged to masticate them thoroughly; because they are softened by cooking it is not to be thought that mastication is unnecessary.

Broths are useful, not only for affording an opportunity for variety in the diet from milk, but are to be used where milk may not agree. To be recommended are consommé soup, mutton and chicken broth, to which may be added rice or barley, and beef-tea. Broths should be made of chicken, lean beaf or mutton, of the strength of half-a-pound of meat to the pint of water for younger children, or a pound to the pint in older ones.

They should be prepared as follows: Cut the meat into small pieces—if beef, use steak—add the water, and cover in a saucepan. Let it stand by the fire for four or five hours, and then simmer gently for two hours. Strain and serve after seasoning moderately with salt. Great care should be taken that all fat and gristle be removed at first.

The expressed juice of beef is made as follows: A tender steak, cut an inch-and-a-half thick, should be broiled till cooked through, but not beyond blood-red color. The juice of the steak should then be squeezed out with a lemon-squeezer and seasoned. One or two tablespoonfuls may be given at a time with stale bread-crumbs to a child of a year or fourteen months.

Bread should be given only when stale; wheat or Graham may be used thinly buttered; gluten or milk crackers may be taken freely with meals, but not between meals.

Desserts which may be allowed to young children are few. About the only ones are plain custard, rice-pudding without raisins, and ice-cream. A tablespoonful of the first two, and half as much of the last, is as much as a child of two years should take at once. They should not be given at all before eighteen months.

Fruits, when ripe, fresh, and in season, of almost all varieties, may be used in moderate quantities. Oranges, pears, grapes with seeds removed, peaches, apples, may all be used after eighteen months, but before should be used very cautiously during hot summer weather.

Eggs, soft boiled (*i. e.*, two minutes), may be given occasionally for variety; they may also be used poached, but never fried.

Recapitulation.

These articles comprise enough to give needful variety to any child in health. The following diet-lists, which have been taken, with some slight changes, from Eustace Smith, show how these articles may be combined and given:

Diet from Twelve to Eighteen Months.

First meal, 7.30 A.M.—
Slice of stale bread and large cupful of fresh milk.

Second meal, 11 A.M.—
Cup of milk with Graham cracker or bread and butter.

Third meal, 1.30 P.M.—
Cupful of beef, chicken, or mutton broth, with bread; tablespoonful of rice-pudding.

Fourth meal, 5.30 P.M.—
Same as the first.

Fifth meal, 11 P.M.—
A drink of milk if required.

Alternate Diet, Same Age.

First meal—
Soft-boiled egg.
Thin slice of bread and butter.
Cup of milk.

Second meal—
Drink of milk.
Bread and butter, or cracker.

Third meal—
Small roasted potato, well mashed and moistened with two tablespoonfuls of "platter gravy."
Cup of milk.

Fourth meal—
Slice of stale bread and cup of milk.

Fifth meal—
Milk if required.

Water is to be allowed with meals, if desired, or between meals; it should be cool but not iced, and only small quantities taken at once. Filtered water is always to be preferred, or water that has been boiled.

It is important that the first meal be given early in the morning soon after waking. A child should not be compelled to wait two or three hours until the family have their breakfast.

Diet from Eighteen Months to Two Years.

First meal, 7.30 A.M.—
Cup of milk.
Slice of stale bread or cracker.

Second meal, 11 A.M.—
Milk and bread.

Third meal, 1.30 P.M.
Thin slice of rare roast beef, mutton, or white meat of chicken cut very fine, or, better, scraped.
Roasted potato with "platter gravy."
Dessertspoonful of ice-cream.

Fourth meal, 5.30 P.M.—
Bread and milk.

The fifth meal at 11 P.M. may now be omitted.

Alternate Diet, Same Age.

First meal—

Tablespoonful of well-cooked oatmeal or wheaten grits, saucerful of milk, half a teaspoonful of white sugar, slice of bread and butter.

Second meal—

Bread and milk.

Third meal—

Beef or chicken broth, cupful, with bread.
Small piece of broiled fish or mutton-chop.
Tablespoonful of plain custard.
Cup of milk.

Fourth meal—

Bread and milk.

These diet-lists are given as illustrations merely. Many more can readily be made out by any mother in accordance with the suggestions given.

After two years are past a little more freedom can be used in the food. The principal meal should always be in the middle of the day and never at six o'clock. Until three or four years of age the evening meal should be limited to bread and milk. Meats may be given in greater variety, but only once a day. Arrowroot, corn starch, rice and barley may be used more freely. A considerable variety, too, may be made in the broths and soups.

Diet in Disease.

For children from eighteen months to two years who suffer from *habitual indigestion* all

vegetables had best be omitted, especially potatoes. The diet should consist of bread and milk, broths, a little rare roast beef or steak, beef-juice, arrowroot, etc. Articles containing or requiring much sugar should be prohibited.

In children of the same age who suffer from *diarrhœa*, with green passages containing curds, all milk should be stopped at once, particularly in cities, where it is frequently the main cause of the trouble. Milk whenever given should first be scalded. It is much better to rely upon broths, barley gruel, and wine or lemon whey.

Simple whey is prepared as follows: A piece of rennet obtained fresh from a butcher is placed in a cup of hot water and allowed to stand for four or five hours. This is added to a quart of milk, allowed to stand till the curd appears, and then strained through a fine sieve or coarse cloth. To the whey may be added the juice of a lemon or orange, and the whole sweetened moderately. This nearly all children take very readily. In cases of great exhaustion, where some stimulant is required, a tablespoonful of old sherry wine may be added to a cup of whey, and a few teaspoonfuls given every hour or two. This will often be retained, if given cold, when all else is vomited.

The prepared foods, such as Liebig's, Horlick's, or Mellin's, are also useful as temporary substitutes for milk in cases of diarrhœa.

They should not be substituted for milk for healthy children as the main article of diet.

Partially digested foods have lately been much used for young infants who suffer from greatly impaired digestion, in consequence of severe acute diseases or prolonged diseases of the stomach or bowels. The best are without doubt the peptonized milk or the peptonized beef-broth. By this means the albuminous matters of the food, which are digested in the stomach chiefly, are partially digested before they are taken. The following is the usual method given for peptonizing milk: Five grains of extractum pancreatis (Fairchild's) and ten grains of bicarbonate of soda are dissolved in a gill of water. To this is added a pint of fresh cow's milk; the whole is kept at a temperature of about 100 degrees Fahr. by setting the vessel containing it in warm water. It should be stirred and watched carefully until a slightly bitter taste is noticed, which is generally in twenty or thirty minutes. It should then be removed instantly and placed upon ice. This arrests the process, which otherwise would go too far and the milk become so bitter that the child would refuse it. Milk thus prepared may be kept from eight to twelve hours. It should be freshly prepared at least twice a day, and in very hot weather it is well to do it for each feeding. Of course it should be warmed before using. The peptogenic milk-powder is

essentially the same as the above, and is reliable when it can be freshly obtained. Failure in either of the above to produce the change prescribed may be put down to the fact that the preparation obtained is old and consequently inert.

The chief objection to the use of peptonized milk by either of the above methods is the expense. It will cost to furnish the proper quantity of either, for an infant of six to twelve months, about a dollar a week. Consequently, although a valuable resource in illness, it is not to be generally adopted in health.

To Counteract Acidity in Milk.

One other point about milk when it manifestly does not agree: The mother should provide herself from a druggist with some blue and some red litmus paper. Cow's milk often disagrees because it is acid in reaction. This can readily be determined by dipping a small piece of the *blue* paper into milk; if acid it turns it red. If this change is prompt and decided, lime-water or bicarbonate of soda should be added until the *red* paper is turned a faint blue, or at least the blue is unchanged in color.

The milk will thus be shown to be in the first instance alkaline, in the second neutral, in reaction; in either case it is much better adapted for the child's stomach.

BABYHOOD

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