The Miracle of Milk:
How to Use the Milk Diet Scientifically at Home

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Chapter III: The Milk Diet Régime—How to Use It at Home

The average individual who has given little or no thought to the subject of diet in general and less to that of milk, is inclined to make two errors in regard to this diet unless especially cautioned.

He is apt to begin the milk diet directly on discontinuing solid food without any preparation of the digestive tract, and because milk is a liquid he is inclined to drink it as water is taken. Another mistake that might be mentioned is that of imagining one is on the milk diet when perhaps two or three meals of solid food are taken, and milk used in quantities of several pints between meals. The mere mention of these ideas as mistakes is sufficient to indicate that they should be avoided.

While I do not believe in the taking of medicine in liquid, powder, tablet, or other form, yet because of its healing and curative effects, milk may be rightly termed a medicine—one of the most valuable, yet least generally appreciated medicines that we have. And to secure the most satisfactory results, preparation must be made to take this "medicine diet," and it must be taken with considerable regularity, as other medicine is prescribed.

Many times I have found that individuals have been impetuous and eager to get on the milk diet, under the wrong impression that the milk diet was the only curative part of the dietetic régime – that the fast was merely to allow the stomach to empty itself, and secure a short period of rest. While the milk is curative, the preliminary fast may even be more so, especially in many toxic and infective conditions.

In many other instances, this same impetuosity leads one to consume from twenty to fifty per cent more milk than is required – either by drinking more at a time, shortening the periods between "doses," or lengthening the number of drinking hours. Unless one is extremely careful to take proper preparatory

treatment, to begin the milk treatment properly, and to conduct this treatment properly throughout the course, the results are not apt to be to his entire satisfaction.

How to Prepare for the Milk Treatment

In preparing to take the milk treatment, it would be well to provide for the maximum degree of rest and relaxation. Though it is possible to take the treatment successfully while still pursuing one's daily tasks, the results are usually not so good as they are when the cure is made the principal object of interest, and not merely an incident.

Further, the responsibilities of business and the time required for its conduct prevent that regularity in taking the milk which is one of the most important features of the treatment.

Therefore, as much as possible, all organs, except of course the digestive and the eliminative organs, should be afforded as complete a rest as possible.

Provision must be made for frequent opportunities to urinate. For naturally when five, six, or more quarts of fluid are drunk every day, the kidneys must operate actively in order to carry off the extra fluid and the waste that is brought away with it.

If it is decided to take the treatment practically in bed – as may be necessary in treating Bright's disease, well advanced diabetes, tuberculosis, or many prostrating or crippling disorders—great care should be taken to insure that maximum degree of comfort by selecting the proper kind of bed and the proper kind of mattress.

The bed should be preferable of iron, as an iron bed is usually more sanitary and is less liable to the creaking and squeaking associated with a wooden bed – sounds which often distract the sleep and render it less restful and health-building.

The bed covering should be light but warm. Sleep between sheets, but see to it that, if weather conditions require extra covering, plenty of light woolen blankets cover the sheets, so that the skin may breath and the perspiration may be absorbed.

This will necessitate frequent changes of bed-clothing, and more frequent airings, in order to keep the bed clean and sweet. But it is very essential that the skin, which is one of the most

important of all organs of elimination, be given the fullest chance to function properly.

There should be one gown for night and one for day. These should be soaked in some cleansing or disinfecting solution, and rinsed our after each using.

What Kind of Milk is Best

My own experience inclines me to believe that, whenever it is possible to secure it, the best milk, either for the "milk cure" or for general uses, is good, clean, unaltered in any way since coming from the cow – free from the addition of any preservative substances, and untampered with in any respect.

I realize that, unless one lives in the country, contiguous to the course of supply, it is difficult to secure milk of this character.

There is, in larger and smaller dairies alike, the very general, though not universal use of chemical preservatives. This is to prevent the development of acid-forming bacteria, and to prevent abnormal fermentation of the milk.

The manufactures who sell these products and many of the dairymen who use them may conscientiously believe them to be harmless, even for long continued use. I do not share in this belief.

Some of these mixtures with a borax "base" may not be exactly poisonous. But they certainly render the milk much less digestible. Therefore, in an invalid or in a weak baby, they might actually constitute themselves a predisposing cause of some grave digestive disturbance, or even of death itself.

Others among these preservatives, such as formaldehyde, formalin or salicylic acid, are distinctly poisonous. Many States recognize this fact and forbid their use and sale.

There is, in my judgment, no harmless preservative for milk; for whatever will prevent fermentation will render the milk less digestible, and therefore less valuable as a food.

There has also been a great deal of discussion as to what kind of milk is best to use. As one individual cow's milk is very likely to vary from day to day, it is always preferable to use milk from a herd or dairy rather than that from a single cow. I am convinced

that Holstein milk is best; then that from Ayrshire, Shorthorn, and Durham cows, and last of all milk from pure bred Jersey and Guensey, or Alderney cows. If, however, milk from Jersey cows is to be used, it should invariably be partly skimmed, after standing two or three hours, in order that the cream content may be reduced.

It is well known that the Holstein, Shorthorn, and Durham cows are rugged and not subject to diseases, especially tuberculosis, as are Jersey cows. And it has also been occasionally observed that Jersey cows sometimes give milk that the young calves can not digest. This is because of the considerable amount of cream and the large size of the fat globules – two conditions that tend to render milk indigestible.

We frequently give skimmed milk and with better results in many instances than could be secured from whole milk. For skimmed milk has all the nourishing elements of whole milk except that perhaps half the fuel for heat has been removed in the cream. The milk sugar and protein, however, will supply all the heat necessary.

Many people who take up the milk diet for the purpose of putting on weight make the great mistake of attempting to use and excessive amount of cream.

Cream does not tend to increase flesh in the body, although it does conserve or prevent the breaking down of fleshly tissue, or protoplasm, by being more readily available as immediate fuel.

The tissue built up when taking milk is formed almost entirely from the albumin, casein, and lactose or milk sugar. Too much cream or fat in combination with this casein would actually defeat the purpose for which the cream and rich whole milk was intended to be taken.

Goat's Milk

Emphasis has probably not been placed by those recommending the milk diet upon the value of goat's milk. In many sections of the country it is impossible to secure this milk, since goats are not kept; but in some districts large herds of goats are kept for

milking purposes. In these localities one may take goat's milk for the milk diet.

Those who find cow's milk disagreeing for any reason may find goat's milk satisfactory in every way. The fat globules of the latter are much smaller than in cow's milk, even Holstein milk, which condition has a tendency to reduce fat indigestion. The cream rises less rapidly, maintaining a more perfect emulsion for a longer time.

The ruggedness of goats makes them less susceptible to disease, and their milk may, therefore, be less contaminated. It has a slightly different taste, but the majority of individuals find it as agreeable as that of cow's milk.

Buttermilk and Sumik

Buttermilk is also of value in some cases. Lactic acid fermentation has soured the milk, thus completing a part of the digestion outside the stomach. As most of the fat is removed on churning, the digestion of this food is further hastened. The difficulty is that one is apt to tire of the taste of this milk much sooner when on the full milk diet than on sweet milk or sumik.

Wherever buttermilk is of value, and this is usually where acid is lacking in the stomach, sumik may be used. This is a clabbered milk made as follows: Set away unpasteurized milk (or pasteurized milk if *only* this can be obtained) in quart bottles or other air-tight containers, in a warm place for twenty-four to thirty-six hours or until clabbered. If the sumik is not to be used immediately, put it on ice until needed. If kept in a warm place it will become too sour and the curd and whey will separate, which condition makes the milk less desirable. Just before using beat well with a rotary egg beater.

Sumik may be taken as an exclusive diet, or, if there is no particular digestive disorder, a few dates or some other sweet fruit may be taken with it. If, for any reason, sweet milk can not be taken, buttermilk or sumik should be given a trial.

I remember one young man who had abhorred milk from childhood who could take sumik with relish, from which he

derived the same benefits as from fresh milk. However, he finally developed a liking for fresh milk.

Dry Milk, Condensed Milk, and Evaporated Milk

As a matter of convenience, and where it is impossible to secure supplies of fresh milk, it will be found that dried or dehydrated, powdered milk, or condensed or evaporated milk offers a fairly effective substitute.

These milks, of course, contain most of the mineral salts and protein found in the whole milk. Certain brands of the dried milk, however, are deficient in fats, which would seem to be an asset, instead of a liability.

It is also a fact borne out by many hundreds of feeding experiments that, in a number of cases, dried milk is markedly more digestible than ordinary milk.

One of the most certain ways of determining the efficacy of any form of milk is in its effect on the growth and nutrition of infants, who, of course, are peculiarly susceptible, as they get practically no other food from which they can secure missing food elements, as do adults.

On of the best tests of rickets or malnutrition is to check up in the infant the time at which independent walking commences. This is ordinarily found to be within fourteen months. If the ability to walk is delayed materially beyond this period, it is generally indicative of malnutrition.

So it is interesting to note that children fed on dried milk and the proper fruit acids walk almost as early as when they have been fed on a whole milk diet, and have apparently quite as good a resistance to disease, and are practically as well nourished as are children who are fed on who cow's milk. So, as regards dehydrated milks producing scurvy, there need not be the slightest apprehension—if fruit acids are taken. Without the latter, I believe the results could not be as satisfactory as with whole fresh cow's or goat's milk.

Certain vitamine tests, made recently, seem to indicate that the fat-soluble A Vitamine, in particular, is very resistant to heat. Osborn and Mendel, and also McCollum and others, have shown

that this vitamine found in butter fat will resist the temperature of live steam without destruction. Dry heating at a temperature of 212 degrees Fahrenheit, with free access of air, only very slowly destroyed the fat soluble vitamine. Water-soluble B (antineuritic vitamine) also resists high temperatures to a considerable degree.

While it therefore appears that the heat used in pasteurizing, boiling, evaporating, condensing, and drying milk has apparently very little effect upon these two vitamines, such milks do not contain the life force and the mineral elements in such sufficient quantities that they can replace fresh milk completely. They are not entirely satisfactory for a perfect milk diet régime, such as is discussed in this volume. But that they are valuable sources of nourishment in certain conditions and circumstances can not be denied, and they are worth trying if raw milk can not be secured.

How to Start Treatment

In order to obtain the best results from the milk treatment it is advisable (unless the individual should be unduly weak and debilitated) to give the system a thorough chance to rest and make ready to absorb the health-giving milk. For when the organs of digestion and elimination first have a chance to rest and fit themselves for their task, the improvement and assimilation are much more rapid.

This complete rest can best be secured by a fast of a day or two. If you are plethoric and overweight, with a sluggish condition of the glandular system, it might be well to extend the fast to as long as five days, or even a week.

It is rarely advisable to prolong the fast much beyond this period, unless under a physician's care, nor is it usually necessary. For by this time the system will usually have unloaded itself of much of its accumulated poison, and the stomach and the system generally will be in a good condition to benefit by the treatment. But if a fast is progressing favorably, no time limit should be set for it.

It is sometimes advisable to eat acid fruit, instead of fasting completely, as the acid fruit tends to stimulate the activity of the liver and bowels, besides building up the alkaline reserve of the

blood by means of its alkaline bases. This is particularly true of the citrus fruits—oranges, lemons, and grapefruit.

The Milk Diet Should be Exclusive

It must be distinctly understood that with the exceptions mentioned here and to be further mentioned in Chapter IV, no other food than milk is to be taken while you are on the "diet." I mention this for the reason that many have told me they have taken the milk diet without results, and upon inquiry I usually find they have taken three regular meals with whatever milk they were able to drink at and between meals, and have imagined they were on the milk diet. Such a procedure is not "dieting" but "stuffing."

Unpasteurized milk should be secured *if possible*. If not, by taking orange, lemon or grapefruit juice along with it, pasteurized milk may be used.

The milk usually should be cool. Where there is poor circulation and slow digestion, or during cold weather, the milk should be warmed to body temperature. It should never be boiled and, in fact, never heated over one hundred and ten degrees.

Some practitioners claim that the milk is best tolerated when taken at "room temperature," not lower than sixty-five degrees. Others find that if milk is warmed to body temperature it is more readily digested.

This is largely a matter of individual preference, and must be gauged by personal experience. If it is deemed best to warm the milk, this can most readily be done by putting the glass of milk in a pan of hot water, leaving it until it is of the desired temperature.

A pan of water may be kept on the back of the stove or radiator for this purpose, or it may be found desirable to use an electric plate under the pan. Under no circumstances use a vacuum or thermos bottle, as the milk may tend to spoil in sustained artificial heat that is not sufficiently hot to sterilize. And never put a pan of milk directly over the fire unless it is extremely carefully watched to prevent scorching. If this method is employed the milk should be stirred constantly.

How Much Milk Should Be Taken

The amount of milk to be taken depends entirely upon the condition of the patient, the condition of digestion, and whether one has been fasting a few days or many days, or eating regular meals previously. After a fast, it is necessary to begin milk gradually, the amount and rate depending upon the length of the fast. After a two or three day fast, take a glass of milk every hour on the first day, and every half hour thereafter for a period of twelve hours daily. After a fast of four or five days or longer, take a glass of milk every two hours on the first day, every hour on the second, and every half hour thereafter, for twelve hours daily. This last method may also be employed in most cases after fasts as long as ten days to two weeks, though it may be necessary to take smaller amounts for the first day and then follow with this plan.

Most adult male patients who have taken the milk treatment have found that the average amount they can take with comfort is eight ounces, or a glassful, every half hour—after this amount has been reached by the above plan. Women usually find four and a half to five quarts a day sufficient – approximately one quart a day less than men. They sip slowly, or take it through a straw, to facilitate the mixture of the milk with the saliva. Often they chew gum for five minutes, following each glassful. This they sometimes find to be of considerable benefit in aiding digestion. The gum used should be paraffin or other totally unflavored gum. But avoid this whenever possible.

The stomach after a fast is contracted, and the musculature, not having been exercised as usual, is weak; therefore its work must be taken up gradually, just as we begin exercise gradually after a rest cure. On the other hand, if the milk is taken immediately following a regular diet, a glass should be taken every half hour from the very first day. Some prescribe a glass every half hour while the patient is awake, but in a twelve-hour period enough milk is taken, and the twelve hours' rest is beneficial. Those following this plan are stronger after completing the diet, and retain the weight gained.

The ideal amount is between five and six quarts daily. This is as much as anyone can successfully digest. Observe that I say

successfully digest. It is true that many can push seven, eight, and even ten quarts of milk through the alimentary tract, but this milk is not digested, as has been proved many times by chemical examination of the feces. Positively less milk may be digested and assimilated on a large quantity than on a smaller quantity, because of the energy depression and energy dissipation through *trying* to digest and eliminate the excess over requirements.

The safe rule may be given as that which allows as much milk as can be *comfortable digested*, up to six or seven quarts a day as the usual maximum. But the stomach should be kept working close to its capacity during the milk drinking hours, when on this diet. Pay no attention to appetite and hunger. If no milk is taken during the night (and except in rare instances this should be the rule), there is usually a morning hunger that lingers for most of the succeeding day, and the milk is relished. It is the amount of milk *digested and assimilated* that is curative, and not that which is passed through the body. One man took but three quarts per day and gained five pounds in a month. Many others have done almost equally as well. Still, in a few unusual cases three times this amount has been taken, relished, and apparently normally digested.

Perhaps as satisfactory a plan as any for arriving at the most suitable quantity of milk is to take a quart of milk for each twenty-five to thirty pounds of body weight. As we can not give a definite amount that will be perfectly agreeable in every case, this plan usually can be followed safely. Much depends on the type of individual, and upon how nearly any particular case conforms to the average normal for that type.

A man six feet tall may weigh one hundred and thirty-five pounds and another of equal height may weigh two hundred and fifty, and neither one appear to be particularly seriously handicapped. But as the thin man should weigh more, he will require considerable milk to supply his defective digestive and assimilative organs with sufficient nourishment on which to gain; whereas the heavier man, whose digestion and assimilation are good, will require less to produce desired results, while still allowing him to reduce to a more nearly normal weight.

While a man weighing normally (not from fat) two hundred pounds will naturally require considerably more milk than one weighing normally (not emaciated) one hundred pounds, he will not require *twice* as much. For the former, six to seven quarts daily will be a low enough maximum—and it is occasionally safe to allow a two hundred pound man of the "raw-bone," or all bone and muscle and no fat type, as much as eight quarts a day; while for the normal hundred pound man five quarts would be a liberal maximum, and four, or four and a half quarts at the most, would usually be safer. The normal man of five feet eight inches will weigh one hundred and fifty pounds. Six quarts daily will be his usual maximum quantity, and many of these men will make more progress on from five to five and a half quarts. But the six quarts per day may be considered a good average from which to work in deciding the most beneficial quantity for other weights, following the plan of a quart for each twenty-five to thirty-five pounds of body weight above or below the normal 150 pounds.

A woman's frame is generally small, the texture of her tissues finer, her physical and physiological activities less pronounced. For these reasons, a woman will usually require daily, as I have stated elsewhere, about a quart of milk less than a man, even of the same height. The average normal woman is about five feet five inches in height and weighs about one hundred thirty-two pounds. She should use in ordinary cases about five quarts daily. Larger and smaller women can use this as a guide for securing the amount most suited to them.

Another rough guide is to take one quart of milk for each foot of height. This will apply for men, while women should use three or four ounces less per foot of height.

I might say here that one-eighth ounce glass of milk every half hour, or a pint every hour for twelve hours will give six quarts; a glass every forty-five minutes, or a pint every hour and a half for twelve and a half hours will give four and a half quarts; and a glass every hour for twelve hours will give three quarts. By this one can easily keep account of the amount consumed.

If one desires to take about five quarts of milk daily (which is the average "full quantity" for women) a forty minute schedule may be followed – continuing the milk from say, 7:30 a.m. to 8

p.m. Or, the regular half hour schedule may be used from 7:00 a.m. to 7:00 p.m., and the milk omitted at four periods during this drinking time; or by delaying the beginning in the morning, or discontinuing the milk sooner in the evening, or both, the same may be accomplished. Quantities other than the regular five quarts or six quarts (for women and men respectively) may be taken regularly by adjusting the schedule by some such method as just given, but as nearly as possible keep the drinking hours down to twelve, that the stomach may have a considerable period of rest. If more than six quarts is to be taken daily, shorten the period between glasses or, after the first few days, take a larger amount at each drinking period, rather than increase the length of the drinking hours.

I realize that one taking the milk diet has little time for other occupation – visiting, picture shows, etc.—but if the highest beneficial results are expected, nothing should be allowed to interfere with the régime. Some, however, do well by taking a pint every hour, which plan gives them more time between drinks for any necessary work, shopping, etc. But social obligations should never interfere with a health-restoration program.

The milk should be sipped slowly. It is very important that the milk enter the stomach in small amounts. The smaller the sips the smaller the curds in the stomach and the better the digestion. If taken as one drinks water, large, difficulty-digested masses are formed. The preferred and, in fact, the ideal way to take milk, and the manner that more nearly simulates the nursing baby's way, is to close the lips very tightly over the rim of the glass, the edges of the lips barely covering the rim of the glass, with a very small opening. This plan necessitates a vigorous sucking in order to draw the milk into the mouth and this sucking produces a contraction pressure upon the salivary glands, forcing their secretion into the mouth and in contact with the milk, to dilute it and to help produce smaller curds when the milk passes into the stomach. Besides, the milk tastes better when taken in this manner, and both salivary and gastric juices flow more freely. This naturally favors more nearly normal digestion of the milk.

The Use of the Milk Diet in Childhood and Youth

It must not be taken for granted that the milk diet is suitable for the correction of disorders in adults alone. Children and young people respond even more marvelously to the treatment than do their elders.

However, if children are properly treated in their acute disorders they will respond so thoroughly and satisfactorily that there will not be the innumerable symptoms and disorders prevalent in adulthood.

Of course, the proper procedure with children is so to order their diet and general mode of living that they will not be susceptible, even, to the acute disorders. But if these precautions to prevent or properly correct acute disorders and illnesses are not observed, and it is necessary to adopt some curative measure for some sub-acute or chronic disturbance, then the fast and milk diet régime is the most satisfactory that can be devised.

Not only in acute disorders should the fast be given in childhood as well as in maturity, but it should precede the milk diet in cases of longer standing. Because of the usually greater ability to respond to favorable treatment possessed by children, a shorter fast will usually bring about satisfactory results. Two or three days of water only, or of water and fruit juices, or acid fruits alone, may be taken preparatory to the milk diet with safety.

The milk diet should be taken by children after a definite schedule the same as it should be by adults. The quantity necessary will vary with them, naturally, according to their age and size and general physical condition. Youths and misses of sixteen to twenty can usually take as much as the adults of their sex. Boys of perhaps thirteen or fourteen to sixteen usually require about as much as an adult woman – four and a half to five quarts a day. Girls of this age will require a pint to a quart less.

Equal amounts will be required by children of both sexes at younger ages. Three to three and a half quarts of milk a day will probably be sufficient from eight or nine to twelve or thirteen years of age, depending upon the already mentioned condition. Even younger children may require this amount, but children from five to eight will rarely require over two and a half or three quarts a day.

Children of a year or so will require three pints or somewhat more or less. And from this amount to two and a half or three quarts will be required from weaning time (one year or so) to four or five years of age.

The remainder of the treatment—that is, the application of the adjuncts mentioned in the next few pages – will be the same as in adults, though naturally adapted to the individual case and condition.

Should Water Be Drunk?

The question is often asked as to whether or not it is desirable to drink water while taking the milk course. There can be only one answer to this: Let you appetite be your guide. If you crave water, by all means drink it. However, in consideration of the fact that milk contains about eighty-seven per cent of water and that you are getting anywhere from four to six quarts of fluid each day, it would hardly seem necessary to take into the system further quantities of a fluid deficient in food material.

In obesity, however, it would be well to take all the water you care for, reducing the quantity of milk accordingly. For the desideratum here is to take more fluid and less food, so as to stimulate a freer excretion of waste products, and thereby force the system to oxidize its excess stored-up fat.

How Long Should The Milk Diet Be Continued?

It is natural to ask how long should the milk diet be continued. To this I would answer, the longer the better. That is, until all symptoms have disappeared—at least the most troublesome and significant symptoms, or, if for any reason this is impossible, then until they have been greatly relieved.

In some cases the treatment may have to be alternated with a fast several times, until the purpose is effected. In others, a period of meals may alternate with the diet. In such cases it is customary to take milk for from four to six weeks, followed by two weeks on the solid diet, after which the milk is resumed if necessary. One should remember that the body requires time to

overcome the injuries of years of wrong living, and because health does not follow a few weeks of the milk diet it must not be considered a failure. It must be repeated over and over again until health is attained. *The principle of cure is correct*, and the results are uniform if the method is correctly followed.

One patient remained on the diet for eighteen months before he was able to digest solid food. His final improvement and gain were all he could have desired. In some cases a few weeks will suffice to restore a person to normal. A Dr. Taylor of Croydon, England, over two hundred years ago, cured himself of epilepsy in two years with the milk diet, and lived on milk exclusively for seventeen years thereafter.

This answers very effectively those who maintain that man cannot live on milk alone. I believe that man can live in better health and do more real work while living on milk than on any other diet whatsoever. We must first get the idea out of our heads that the body needs a large amount of solid nourishment, represented by a large number of calories or heat units.

Milk is so easily digested and assimilated that a much larger amount of real nourishment is obtained from it than from the large meals of solid food thought necessary for adequate nutrition. It is all very well to figure up the calory content of a meal, but who knows how much of the food is digested, assimilated, and used by the body?

Living on Milk for Fifty Years

In one case, quoted by a milk diet specialist, a patient has lived on a strictly milk diet for more than fifty years. He has never been ill a day in all that time, and his bowels have moved with absolute regularity twice a day.

This gentleman, as it happens, was forced by necessity to go on a milk diet, for at the age of two he took a dose of concentrated lye. This caused a stricture of the oesophagus, or food pipe, which has prevented him from swallowing solid food of any kind. The passage was so constricted by the effect of the lye that not even a crumb of bread could pass through it.

Yet this man is rugged, healthy and well nourished, the father of four robust children. All the food he has ever had in these fifty years has been a quart of milk at each meal.

This proves that certain individuals have wonderful powers of assimilation, enabling them to utilize practically every grain of food value in their allotment of milk. Doubtless the milk diet itself has a great deal to do with establishing a perfect assimilation and function. Were this not so, this man could hardly have secured from the relatively small amount he was taking the necessary material to meet all the needs of cell growth and repair, and at the same time secure the requisite amount of heat and energy to give him the abounding vitality he is credited with possessing. But this experience is by no means unique.

Professor Weir Mitchell in "Fat and Blood," says: "I have seen several active men, even laboring men, live for long periods on milk, with no loss of weight; but (frequently) large quantities have to be used. …A gentleman, a diabetic, was under my observation for fifteen years, during the whole of which time he took no other food but milk, and carried on a large and prosperous business. Milk may, therefore, be safely asserted to be a sufficient food in itself, even for an adult, if only enough of it to be taken."

However, we are dealing here with the milk diet as a therapeutic measure. In by far the majority of cases a milk diet for from four to six weeks, or a series of milk diets alternated with fasts for a period of two or three months, will suffice to normalize and regulate the organic system and numerous functions, so that it will not be necessary to continue for long periods of time on this diet. These cases are cited merely to prove that milk, even when taken exclusively, contains every element necessary for maintaining health. And what will maintain health will correct the large majority of disturbances of health. The effect of citing these instances may also encourage those who should continue a curative régime for a long period of time to do so. Also, if one prefers to continue on the milk diet for the purpose of developing the highest degree of health possible, he may be assured that it is perfectly safe in every way for him to continue this as long as desired or required. In fact, experience has shown that it is better

to err on the side of continuance of this diet than in any way to curtail it.

One may do an immense amount of physical and mental labor and be extremely active during this diet. It has also been noted that such individuals are able to endure extremes of heat and cold better than the average person living on the ordinary diet. In fact, it has been claimed that one may get more out of a quart of milk than an Eskimo can extract out of a pound of blubber.

The Best Time for the Milk Treatment

Probably the best time of the year for the milk diet is Spring and early Summer. At this time of year the cows are eating new grass, which seems to give the milk a greater curative value, probably on account of the increase of the organic salts and the better health of the cattle when outdoors and eating their natural diet. This will apply mainly, however, to cows in large dairies.

The majority of people throughout the country will be able to secure milk from cows that are out of doors practically the year round. This tends to keep the cows in good health. Also many farmers have silage to feed their cattle during the winter months. So far as chemical analysis is concerned, there may not be a great deal of difference in milk secured at various seasons because of the fact that the cow's system and udder is a laboratory which tends to produce a certain quality of milk. If the food elements are absolutely lacking, this can not be done without producing disease in the cow through her system's effort to supply the elements to the milk by taking them from her own body tissue and fluid.

However, judging by many years' experience, with thousands of cases treated the year round, I believe that the milk diet can be taken at any time of the year with practically uniform benefits, with possibly a slight advantage of Spring and Summer milk over Fall and Winter milk. If you find that you require the milk diet, do not hesitate to take it because the season has passed for the cattle to receive fresh grass and green stuffs. Take it at whatever time of year you need it, regardless of season, and expect favorable results.

Plenty of Fresh Air

Provision should be made for securing plenty of fresh air—day and night. Except in extremely cold weather, or during heavy storms, at least one window of your living and bed rooms should be opened wide. Or, better still, two windows, especially if situated on the same side of the house or in right-angle walls so as to avoid drafts over the bed, should be open, to favor a free circulation of air at all times.

Remember that food has to undergo a process of oxidation or combustion before it can be utilized to yield heat and energy, or before the "end products" of the albumin elements can be burned up into harmless "ash," to be excreted by the kidneys and bowels, skin and lungs.

Therefore deep breathing exercises are of great value, and all means should be utilized to provide the lungs and the blood with ample quantities of oxygen to carry on the vital processes of the body.

Exercise and the Milk Diet

There are two distinct thoughts in regard to exercise when taking the milk diet. Some claim that there should be a complete rest in bed in all cases. Others advocate exercise generally, and advise a complete rest in bed only to certain cases. Exercise will tend to aggravate the condition where there is complete exhaustion of vital forces; where there is neurasthenia to an extreme degree; whenever movement excites considerable pain, especially of an inflammatory nature; when the blood pressure is excessively high, or where apoplexy is imminent or has already visited the patient; where fever is present, as in tuberculosis and acute illnesses; in cases where diarrhea is pronouncedly aggravated on exertion; where the muscular or valvular condition of the heart is dangerously diseased; where there is considerable pathology in the kidneys, or infection elsewhere in the abdomen or pelvis; where there are stones in the kidneys, or bladder, or gall-bladder; and in prolapse of any abdominal or pelvic organs, if the exercise is taken in the upright position. But in practically every other instance exercise will be of advantage.

The greatest value of exercise when on the milk diet is in the fact that it increases the depth of respiration and the amount of fresh air taken into the lungs. In every instance, however, one should avoid such fatiguing excess of exercise as may cause debility or throw into the circulation a greater amount of fatigue poisons (the by-products of broken-down cells) than can be got rid of by the oxidizing effects of deep breathing and the recuperative effects of sleep.

If your condition necessitates a complete "rest cure" in bed, it is advisable to take exercise only in the form of passive motion or tensing of the various muscle groups while lying in bed. The former is motion of joints given by an attendant. Also stretching of all the skeletal muscles in the body will be a very great help.

Or a daily general massage, either by some masseur or masseuse called in for the purpose or by some member of the family, will stir the sluggish circulation and facilitate the removal of waste products from the system, thereby hastening the progress of the cure.

Owing to the fullness of the abdomen after a few hours of the milk diet, it is usually preferable to take the daily exercise the first thing in the morning, before any milk has been consumed. If fruit juice is taken before the milk, it is usually better to take the exercise even before the fruit juice, but after a glass of water. However, if it has been found that the fruit juice will not cause any disturbance when followed immediately by exercise, there should be no harm in making it a rule to take the fruit first.

Those who are taking the milk diet for general upbuilding, without any serious physical disorder, may take exercise an hour or so after discontinuing the milk at night, provided there is no distress during nor after the exercise and no diarrhea produced.

Sometimes a person has a "muscle hunger" which passive motion and stretching exercises do not fully relieve. In these cases, and in any other where it is apparently safe, one may take a short walk in the forenoon, or in the afternoon, or before retiring at night; or a walk at any two or all three of these times if strength and general condition permit—always starting out at least fifteen to twenty minutes after a glass of milk. This walk will assist in the peristaltic or churning action of the stomach and

intestines and will help the digestive processes, the breathing, the circulation, and the nerves. And, as improvement is noted, the severity of the exercise may be gradually increased until one is able to take part in the popular sports such as golf, tennis, rowing, swimming, skating, bicycling, etc. In my personal sanitarium activities every patient who can so secures thirty minutes or more of callisthenic drill once or twice daily. Care must be taken in each case, however, to stop short of the point of actual fatigue, to prevent the accumulation of fatigue poisons in the system.

Of course, for those who can afford it, an automobile trip of an hour or two will be excellent. If health permits, horseback riding for an hour or two will prove a splendid form of exercise.

How a Hopeful Frame of Mind Helps

It should go, almost without saying, that a cheerful, contented frame of mind is a decided asset in the ultimate success of any form of treatment.

Under the cheerful influence of hope and confidence all the normal secretions are increased. Physiological functioning is stimulated. M. Coué has crystallized – or rather resurrected—a great truth when he has given us a formula for focusing the conviction of certain improvement—physically, mentally and socially and financially.

We must learn to tap these hidden subconscious reservoirs for health and energy by assuring ourselves that health and energy are coming to us and that nothing can keep them from coming.

I do not want to be understood in the least as holding that there is not in milk alone, properly taken, all the elements that are needed to build sound, healthy tissue in place of diseases or starved structures. For the milk treatment is not hypnotism or autosuggestion. Its victories do not depend on any mental or suggestive formula.

I do mean, however, that your cure will be greatly hastened if you preserve a cheerful, confident frame of mind and a firm assurance that you are going to get well and strong, and that, despite any temporary setback, the ultimate outcome of your

treatment is absolutely certain to be as favorable as you most sanguine expectations.

Nor need you concern yourself with whether your stomach acid juices are hyper-acid or sub-acid; whether or not you are eliminating the proper balance of urea and uric acid; or whether the blood corpuscles show the increase you expect them to show.

All these things are incidental and have no immediate direct bearing on the ultimate result of your treatment. When you begin to feel better you will *know* it, and no one can tell you the opposite—or, at least, make you believe it. When you start to increase in weight, your scales and your clothes will convey to you this information.

If you feel relaxed and disinclined to exert yourself, so much the better. Try to remember that this is, in all probability, Nature's way of telling you that she is busy building up your tired, wasted body—replacing dead, worn-out cells with new, healthy, vigorous tissue—and that she hopes you'll have sense enough to accept her suggestions to rest up and give her a chance to do her work.

After a day's hard work the body needs the night's rest. After a long period of overwork, illness, or abuse it needs a correspondingly long time to put itself once more in proper functioning shape.

Warm Baths Helpful

One of the most certain and most practical means of helping to secure relaxation is the protracted warm bath—the so-called "neutral bath"—taken at a temperature a few degrees above body heat, or, at most, at a temperature not to exceed 110 degrees Fahrenheit.

The effect of this bath is to soothe the nerves, equalize the circulation, promote a freer excretion through the pores, and cause a general relaxation of all tissues and organs, which puts them into best shape for absorbing nutriment.

The warm bath is not in the slightest degree weakening, as so many erroneously believe, though a hot bath, too long continued, often has this effect. Indeed, many sorely wounded soldiers, during the late war, have been kept in the warm bath for weeks at

a time, eating and sleeping right in the bath, with head supported by a strap saddle or a rubber pillow. It is said that two hours' sleep in the warm bath is equal in recuperative powers to an entire night's sleep in bed, for the relaxation is so much more pronounced, the recuperation from fatigue is so much more rapid.

I am thoroughly convinced that the daily warm bath is of the most decided advantage in bringing about the best results of the milk treatment. Especially in all conditions characterized by pain and soreness are these baths valuable, for the uric acid of rheumatism is eliminated more rapidly, tenderness or inflammation in muscles or joints is relieved, and a new and better functioning ability is brought about through the equalization of pressure on the body surfaces.

If a patient on the milk diet is up and about, at his regular work or taking considerable exercise, perhaps the best time for his bath would be before his milk in the morning or an hour or two after the milk has been discontinued in the evening.

If one is not working but is taking exercise once a day, this exercise may be taken early in the morning, to be followed by the bath. Or, as with the bedfast patient, milk may be discontinued at one or two periods in the forenoon or afternoon (preferably early afternoon) and the bath taken about thirty minutes after the last glass of milk.

If sufficient time is taken for drying the body and dressing—that is, if these are done leisurely—the milk may be taken immediately after the full completion of the bath.

I do not believe it wise or necessary to use the skin rubbings of oil as an adjunct to the milk treatment. This is chiefly for the reason that the skin organically absorbs but very little oil anyhow, even if oil were needed—which it usually is not.

Further, the oil tends to clog up the orifices of the pores of the skin. This prevents the proper functioning of the sweat glands, and restricts the activity of the eliminating process.

How Tobacco Hinders the Treatment

I am so thoroughly convinced, as all readers of my book "The Truth About Tobacco" will remember, of the harmfulness of the

use of tobacco in health that I can not refrain from condemning it without reserve in all conditions where the health function is distorted.

Many nervous disorders are made infinitely worse by the use of tobacco, particularly by the inhalation of cigarette smoke.

The kidneys, as in Bright's disease, are especially susceptible to the irritating effect of nicotine absorption as they are to the effect of coffee. Therefore I do not believe that any person who continues to smoke or to drink coffee or tea during the course of this treatment is doing himself or the treatment full justice, particularly as the craving for tobacco, as well as for tea and coffee, will generally cease if only the milk be persistently used for a few days.

And Don't Read Too Much

Many people are not content to relax and just rest. They must be occupied every waking moment. If they are not otherwise engaged, they insist upon putting in their time in reading or sewing. Both these occupations use up a certain amount of energy that should be utilized in building up healthy tissue.

Take it easy. If you must read, select some light reading material, and then do not read continuously or feel that you have to finish the book on schedule time. Read only for a few minutes at a time. Then lay the paper or book down until you are impelled to pick it up again.

The same is true of talking. Most talking is unprofitable. If it is a discussion on any deep subject, or any matter that entails much brain activity, it may be a distinct hindrance to early recovery. And much light talk is time-killing, nerve-frazzling, and energy-dissipating. Wait until you are well. Then talk. This will save a lot of vital force and help you to make a quicker and more gratifying recovery.

Refrain from Sexual Indulgence

Remember that when the system is below par, and when every effort is being made to bring it up to par, the vital organs should have the most complete rest it is possible to obtain.

With a rapidly assimilated food, such as milk – which contains large quantities of phosphorous and other nerve-stimulating salts—there is not infrequently an unusual tonic influence exerted on the reproductive organs.

However, it would be well not to dissipate any of the precious energy that is needed for the rebuilding of damaged tissue or starved cells by giving way to what might seem perfectly natural impulses for sex gratification.

If the nutriment that goes into the formation of semen and sperm cells is permitted to seek its natural channel, according to the laws of selective affinity, brain and nerve cells will benefit by their conservation.

If you feel you must use up some of the vigor and vital energy that follows the liberal feeding on highly nourishing food, take a walk, or exercise, or occupy your mind in some constructive way. I hope a word to the wise may be sufficient in this respect.

Emergency Alternative Regimens

By what has already been said in favor of the milk diet, I am sure many people will make sacrifices or so adjust conditions that they can follow this régime for the correction of one or more physical disorders. But there will be some instances where, because of occupation, constant traveling, etc., it will be difficult to follow strictly the full milk diet. Yet many of these people require the milk diet for the correction of their disorders.

Can this diet be modified and still accomplish the same results in these cases? No. At least the same results can not be accomplished in the same length of time. Possibly one will have to be content with only a part of the improvement he might secure were it possible for him to take the regular milk diet.

Without doubt, however, modification of the diet may be used in certain instances with considerable benefit. One of the best alternative treatments is that given in Chapter V for changing

from milk to solid food. That is, the milk may be taken the first part of the day and a meal of solid food in the evening. The reverse of this may be used as successfully in some cases – that is, a meal in the morning and milk from one until seven o'clock.

Another good plan, especially for those who have little or no difficulty in maintaining weight, is to take very slowly a quart of milk for breakfast, one for noon, and one in the evening. If more than this quantity is required, then perhaps a pint may be taken at mid-forenoon, another at mid-afternoon, and another shortly before retiring.

A plan that has been very successful in some cases, especially where milk was desired for a long period of time, is a quart of milk at each of three meals of sweet fruit. For instance, twelve to fifteen dates, or three or four ounces of raisins, or eight to twelve figs may be taken with either sweet milk, sumik, or buttermilk. Or, in place of the fruit there may be taken finely ground whole wheat muffins thoroughly baked. These may be made with raisins or black figs, or some of each. It is better not to use these muffins at each of three meals. Instead, use them at one or two meals, and fruit as above mentioned at the other one or two meals. With this plan it is better to have one meal of milk alone or milk and acid fruit.

If allowance is made for the bulk and the protein element of milk, then milk may be taken at any or all of the three regular meals during the day. It should be taken with meats or fish, and seldom with nuts or eggs.

So far as I know, there are no chemical or physiological reasons worth considering why milk can not be taken with green salads. These two may constitute the main bulk of a meal, and some whole wheat preparation or sweet fruit may be used at the same time.

The more milk one consumes—within reason—and the more this milk constitutes the main portion of the diet, the more will one be apt to derive the benefits possible on the exclusive milk diet.

Bear in mind that your life and happiness depend upon health. If an accident should befall you, you would be obliged to take time off until correction had been accomplished. If you had some acute

illness of a serious nature you would probably be confined for several weeks. In either instance the world would move on just the same. When such a normalizing agent as the milk diet is at your service for correcting disorders of almost any nature and degree, it would be best not to compromise with some modification of the diet, but plan to take the treatment while it would require a comparatively short time to re-establish the proper balance in your physiological activities. You may be saving yourself from serious illness or from a rather protracted course of treatment, with consequent greater loss of time than may not be required.

Milk—The Great Health Restorer and Preserver

I may be over-enthusiastic about the milk diet, but I believe that the person who knows how to use the fast and milk diet has a regimen at hand that can be adapted to and used successfully in almost any form of acute and chronic ailment. And even should necessity through disease never arise, a short fast followed by a few weeks of milk diet every year will keep any one well, give renewed energy, greater resistance to disease, a cleaner complexion, and a better feeling of bodily comfort than any spring tonic or blood purifier ever compounded.

Perhaps the most eloquent tribute that has ever been paid to milk and to the source from which it is secured is the tribute from Gov. Frank O. Lowden of Illinois, in a pamphlet issued by the Illinois Department of Agriculture: "The cow is a most wonderful laboratory. She takes the grasses of the pasture and the roughage of the field and converts them into the most perfect food for man. In that food there is a mysterious something which scientists have found essential to the highest health of the human race, which can be found nowhere else. Men have sought for centuries the fabled fountain of youth. The nearest approach to that fountain yet discovered is the udder of the cow."