

## Breast-Feeding

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### The Establishment of Lactation

A good deal of work has recently been done, reports 'of some of which are on the eve of publication, showing, among other things, the difference between the establishment of lactation in primiparæ and multiparæ—a point not always fully realised. It is owing to the lack of appreciation of this difference that many mothers fail to nurse their first babies. With a primipara the glands. have not previously been in action and the task is therefore that of establishing a new function, and it is to be remembered that every new form of activity has many possibilities of going wrong. On the other hand, in the case of a multi- para all that is necessary is to re-establish a previously existent function. To consider first the primipara. The first thing that occurs in the little bags of cells on the stimulation of suction is that the cell walls nearest the lumen of the duct will break down and the contents of the cells be drawn along towards the nipple. These cells contain the sugar, protein and salts of the milk in solution and also large fat globules. All these gradually are drawn into the duct of the gland and washed out by the saline— like fluid which forms the body of the milk. If the base of the nipple of a primipara is squeezed very carefully during the first two or three days it will be noticed in very many cases that out of each of the ducts opening on to the nipple will come. a different substance. The reason of this is not yet known. Out of one will come a clear, thick, heavy— looking fluid rather of the appearance of paraffin; out of another a clear, brown fluid, more liquid than the other; out of the third, a bright yellow, cheesy—looking substance which will be washed down by the others and give the colour to the resultant fluid. This is colostrum proper. In many primiparæ even this for the first 56 hours is not present at all.

It is a common mistake to think that milk must be present in the breasts by the second or third day or else there is something seriously wrong with the gland. I have known perfectly satisfactory mothers from whom nothing at all has been able .to be squeezed for two and a-half to three days and whose milk has not fully come in until the tenth or eleventh day. Should this happen it only means that one or other of the adverse factors that inhibit lactation are still at work. Either the mother is still under the shock of her labour or she has a badly-toned breast, —flabby or too large—or a poor nipple ; her skin and blood supply may be un— satisfactory, or she has a feebly-sucking baby. All these factors can delay the appearance of milk and hinder its establishment, but each one can be dealt with and none is a permanent hindrance to efficient lactation.

## Study the Baby

Perhaps in the whole matter of the establishment of lactation the determinant factor is the question of stimulation. In this connection it is well worth while for anyone who has to do with breast-feeding to study how a baby grips a nipple and in what manner it sucks. In this there is a great difference between a bottle-fed and a breast-fed baby. A baby fed upon the bottle takes the whole of the teat into its mouth and pulls upon it with an inward drawing motion. A breast-fed baby, on the contrary, hardly ever sucks on to the nipple at all, and that only in cases where there is disproportion between the size of the nipple and the size of its mouth. In ordinary cases a baby bites with both jaws on the areola at the base of the nipple, its lips being pressed outwards and the direction of the action directly against the breast. Where the nipple is too large for the baby to be able to take up this position towards it, it will treat the nipple as a teat, and suck on to it directly, and the result will be a soreness of the skin at the end of the nipple, and insufficient stimulation to the breast itself. A glance, therefore, at the baby during any of the first few feed times should give very useful indications as to what the course of the establishment of lactation is going to be. In all cases of difficulty due to the unsatisfactory stimulus given by the baby, the wisest mothers from whom nothing at all has been able to be squeezed for two and a-half to three days and whose milk has not fully come in until the tenth or eleventh day. Should this happen it only means that one or other of the adverse factors that inhibit lactation are still at work. Either the mother is still under the shock of her labour or she has a badly-toned breast. flabby or too large or a poor nipple ; her skin and blood supply may be unsatisfactory, or she has a feebly-sucking baby. All these factors can delay the appearance of milk and hinder its establishment, but each one can be dealt with and none is a permanent hindrance to efficient lactation.

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breast itself. A glance, therefore, at the baby during any of the first few feed times should give very useful indications as to what the course of the establishment of lactation is going to be. In all cases of difficulty due to the unsatisfactory stimulus given by the baby, the wisest plan for the first few days is for the nurse to start the flow of milk herself at each feed by applying digital pressure in rhythmic spurts to the areola at the base of the nipple until the milk appears. If the baby is then put to the breast every suck taken is efficient. This point brings us to the principle guiding the management of the first week of lactation.

In this part of lactation perhaps more than any other it is important to realise that success will depend upon the proper balancing of the welfare of the infant against that of the mother, and the understanding of the fundamental requirements of either. Let us take these in turn.

#### The Welfare of the Mother during first week of Lactation

The main points to be considered for the mother are that first of all the nipple must not lie too long in the baby's mouth. A nipple at the beginning is a tender thing, and sucking means warm and hard pressure constantly repeated, factors which are hard upon any skin, and it is deplorable to see, as one so often does, a nipple remaining for ten or fifteen minutes within the first 36 hours in the baby's mouth. The maximum time for a primipara that any baby should be allowed to suck for the first two days is three minutes at a time, increasing to five minutes on the third and fourth day. My own personal technique is to give the baby to the mother six hours after parturition, and to put it to both breasts for three minutes six-hourly for the first 24 hours, and then three-hourly until the milk is established. The mother should be in a comfortable position, so that the act of suckling comes easily. This is a matter of importance for the nurse to arrange for the first two or three days. Later on the mother will do it for herself. Thirdly, feeding should be a matter of absolute regularity. This is always important, but never more so than in the first few days, when habits are being formed. Finally, for the sake of the establishment of a satisfactory flow of milk, the baby must be a strong sucker, or, if he is not so by Nature, then accessory stimulation of the breast should be given by the nurse, as has been suggested above.

#### Welfare of the Baby during first week of Lactation

The first few days are equally important to the baby as to the mother. Since the baby has so far done nothing in its life, every impression it receives is its first impression, and a model for all future impressions—a fact which is so obvious that it is very often overlooked. A baby has no experience to reason from, and therefore, if its first attempts at sucking produce no satisfaction—that is, if they do not result in the production of milk—it is impossible for it to realise that its later efforts will probably be more successful, unless

excessively vigorous or hungry, it will drop the nipple and begin to cry. If the establishment of lactation is to proceed smoothly, therefore, it is always worth while to expend considerable pains upon the first half dozen or so feeds, to see that the baby has satisfactorily grasped the nipple, that it is comfortable, and that its sucking is in proper relationship to the amount of satisfaction obtained.

For the baby, just as for the mother, it is important that it should not be allowed to suck too long at the beginning, for during this time there is very little secretion, and if a baby is allowed to suck at an empty breast it will get disheartened and refuse to make a proper attempt next time.

### Delayed Lactation

Finally, it is essential to realise that even with the best care milk may some- times be delayed, and that this is a point of no importance whatever. Every healthy baby can do quite well for the first week on boiled water, and it does not really matter in the least if he should lose rather more weight than is customary during this time. I have known cases of babies who have been weaned by doctor or nurse on the fourth day because the milk had not come in. This is quite indefensible, and due to a lack of appreciation of the factors influencing the establishment of milk.

### Management of the Breasts when over-full

One other crucial point which is of equal importance to both mother and baby, and at all periods of lactation, is to see that at each feed the breast is fully emptied. If the baby be a feeble sucker it will not be able to accomplish this by itself, and the breast, not being fully exhausted, will not fill up again satisfactorily. In these cases it is wisest for the nurse to empty the breasts after the baby has had the full time allotted to it.

Later in the first two weeks, when the milk begins to come in, it will probably do so with a rush, and the mother become very uncomfortable. It is at this point that skill and adaptability in management are most necessary. The points to be remembered are:—

(1) That a cold compress or, with private patients, an ice bag, at the onset of engorgement or of flushing is very effective as a regulator.

(2) That the breast should be very care- fully supported as soon as it begins to become full, and an arrangement made, by which varying degrees of pressure can be applied to it.

(3) That the best method of dealing with an over-full breast is to allow the baby to empty it, and consequent vomiting on his part for a feed or two will be a matter of little importance; and, finally,

(4) That hot fomentations if applied should have a hole cut for the nipple, and be used in rapid succession over a short space of time rather than occasionally through a long period.

With multiparae all these difficulties are very much less likely to arise than with primiparae. The milk comes in earlier, establishes itself more easily, and in the management of the baby previous experience of the mother is of the greatest aid. The most interesting case is that in which a mother has previously failed to feed one or two children, and is determined to succeed with her third. The task then is to discover why this failure happened in the past and to find methods to correct the factors at fault in the present instance.

#### Management of Established Lactation

The establishment of lactation is the key to satisfactory breast-feeding. If one has succeeded in getting the milk well-established and the mother hopeful and confident in her outlook with regard to it, and possessed of a certain amount of knowledge of the management of the difficulties that may arise, then, in very many cases, it is possible to let her go away for the rest of her period of lactation and hardly see her again.

The difficulties in the management of established lactation are generally to be found in the following three cases: The mother with too little milk; the mother with too much milk; and the mother whose milk appears to disagree with the baby. With regard to the management of this period of lactation, the point around which the greatest discussion centres is the question of the time interval between feeds and the length of the feed itself. Here there are many theories, but the one I think that is gaining most ground is the one which decrees that the mother should feed four-hourly. In certain cases some people say that an even longer period is satisfactory, but for almost all babies five feeds a day is a perfectly adequate regime. It is in most cases wiser to feed from both breasts each time rather than from one, as, if each side be emptied, in cases where there is little milk, the supply will be stimulated, if, on the other hand, the supply be too plentiful, the inefficient emptying will tend to regulate the flow. There are, however, very many mothers who feed successfully for nine months using one side only at a time, and it really matters very little which procedure is adopted so long as care is taken to see that the supply is adequate.

As regards the time taken by a single feed, the baby should never be given more than 20 minutes unless there are very special indications for this, and then half an hour should be the outside allowable, this being timed by the clock. My own routine in all ordinary cases is to prescribe 10 minutes each side at each feed.

### The Amount of a Feed

As to the amount necessary at a feed, for ordinary mothers who are not able to test-weigh, the weekly weight of the child must be taken as the guide. If a baby is gaining 4 ounces a week or over, then the probability will be that the amount taken is sufficient. Where test weighing is possible a rough rule for most normal babies is to give 2.5 ounce, per lb. of body weight for the 24 hours.

In considering the mother with too little milk, the mother with too much milk, and the mother whose milk appears to disagree with the baby, there are certain points ascertained by recent investigation which are useful to bear in mind. The chief of these is concerned with the factors governing the variation in proportion of the different constituents contained in the milk. Of these the sugar, protein and the mineral salts vary considerably during the first days of lactation and develop regularly according to the date after parturition. Later the proportion of these three substances does not alter appreciably. With fat entirely the reverse is true. The proportion of fat in milk does not vary with the development of lactation, and is never completely regular at any one feed. The conditions governing its percentage in the milk are local to the breast and to the manner of extraction, and as these vary in every instance and in each feed the resulting proportion varies also. The quantity of fat in any milk is lowest at the beginning of a feed and with a feebly sucking baby, and highest at the end of a feed and where the baby is vigorous in action.

These facts are of considerable importance in the management of cases where there is apparent illness in the baby. In the case of the child vomiting after feeds, if it is not a large amount, but has a rather sour odour, and the stools are too loose, the probability will be that the child getting too much fat. This condition very rarely, if ever, occurs in a feebly sucking baby, but a vigorous sucker, especially if the milk supply is moderate, will express a very high amount of fat, and at the end of a feed will be obtaining a milk which is practically identical with cream. If this be realised its adjustment is easy. The baby will in all probability be feeding from one breast only, from which it gets both the fore milk and the after milk. It should be taken from this, and put on to both breasts, and not allowed fully to empty either. From these it will obtain only the fore milk, which is the poorer in fat. The percentage of fat in the mother's milk should be diluted by the addition of more fluid, particularly of a glass of water to be drunk while feeding. If neither method proves effective

then the baby should be given from 3102. to 1 02. of boiled water before the feed. In practically all cases of dyspepsia in breast-fed infants these means will be successful.

### Premature Weaning

There would seem to be four common causes for the premature weaning of babies:-

1. That the milk has not come in. This as we have seen, is a failure which, with care and proper management, should not occur.

2. The baby has loose stools and is vomiting. In 95 per cent. of these cases the cause of this is over-feeding either in quantity or in fat. The crying of a baby after a feed very much more often implies colic from overfeeding rather than hunger and is usually correlated with an abundant supply of milk and vigorous sucking, with air-swallowing or with gulping. A useful routine in dealing with babies. of this kind, even with the sickly ones, is to put them on to 24 hours of boiled water, and then to begin with a diluted feed, that is to say, with water before the usual breast-feed.

3. That the home conditions of the mother do not make it possible for her to give the time necessary for feeding. A point of very great importance, and especially in district work, is to study the home conditions of the mother and the means by which it is possible to enable her to feed. A method that is of the greatest assistance in the accomplishment of this is to learn oneself and to teach the mother how to express her milk. It will then be possible for her to feed from one side, and immediately after to express an equal quantity of milk from the other side, and to leave it behind in a bottle for someone else to give to the baby. at the next feeding time. By this means it is often possible for a mother to continue to rear her baby on her own milk even although she is not herself able to be with it at more than two or three feeds in the 24 hours. A little practice will enable most women to attain sufficient dexterity in the process for expression to be a matter of less than a quarter of an hour.

4. That the supply of milk, once adequate, has become insufficient for the needs of the baby. If all that has been said above. with regard to the factors conditioning the supply of milk to the breast and its satisfactory management be taken carefully into account and carried out into practice, this position also will, in nearly all cases, with adequate perseverance, respond to treatment.