

ment and we expect to drive back the enemy and then you may go home;" then one morning the firing began. We realized that new conditions had come and we realized it was heavier than anything we had had before. Very soon we found that one big island, that was just in front of our windows down the river, was the point of contact. It looked like a picture of hell, nothing less. That night they began to fire on the city itself and very soon the city took fire, and we could see the great flames all over the sky in addition to the awful sounds that we heard. The next day the stillness commenced and the wounded began to come in. That day our electric light was cut off and all our water supply. We had no more water in the hospital, except such as was carried from an old well for thirty-one days. You can think what that would mean to any hospital in the United States that had one thousand people to care for. . . .

We stayed a month and took care of the Austrian wounded, because they were not yet ready to send in a Red Cross unit of their own; but then we told them that just as soon as they were able to take over the service themselves we must go back to the United States. So as soon as we felt that all their arrangements were made, we packed up our things and came up through Austria, through Hungary and Switzerland and France and finally came home.

Our experience was a very vivid one. It lasted fourteen months and was made up of all sorts of things, some I do not like to think about, many of them I could not tell you. There is only one thing that I will say and that is this: I have felt so strongly since I came home how much the Red Cross means to us, it has been brought home to me every single day, because it stands for the one thing that is our salvation now, that is for the brotherhood of mankind. The little help that we have been able to render will never be forgotten, it will live just as long as the world lives, because it represents the feeling of the American people and the American Red Cross, that love of mankind which shall live and bring to us peace.

TUESDAY MORNING SESSION, MAY 2, 1916

CARE OF THE MOUTH DURING PREGNANCY

By M. EVANGELINE JORDAN, D.D.S.

A. SUPERSTITIONS OF THE PAST

This is an age of great scientific discovery. Possibly among the most wonderful discoveries have been those pertaining to the advance of health and the prolongation of life.

As these discoveries have come to light they have cleared away the fogs and darkness of superstition; but two of the bogies that have been slowest to slink away into the shadows are:

First, The superstition that dental care of the prospective mother will produce birthmarks upon the child; and

Second, The superstition that it is natural for a woman during pregnancy to have trouble with her teeth, and that she must expect to lose a tooth for each child.

B. KNOWLEDGE OF THE PRESENT

To banish the first bogy we have only to recall two facts, first, that foetal development is too far advanced before the mother is aware of her condition to affect the developing child—cleft palate with hare-lip being due to lack of union of the superior maxillary bones, which occurs in the second month; and, second, that the histories show many major operations successfully performed upon women during pregnancy, each of which was followed by the successful delivery of a normal child.

The bogy of a tooth for each child has, unfortunately, more reason for making a slow retreat, because women do suffer with their teeth and often lose one or more for each child. It is not a natural condition, but a pathological condition due to neglect, and the greater the neglect the more pathological do the tissues of the mouth become.

The only danger that a woman need fear from dental work is a shock so great that it will produce abortion or miscarriage. Such a danger is so remote that for all practical purposes we can say that it need not exist if the dentist knows of the woman's condition, for then he will not undertake long or painful operations. On the contrary, where the mouth is neglected, the shock from prolonged toothache or the poison absorbed from an abscessed tooth may be severe enough to cause such an abortion. Even if this serious condition does not follow, the suffering caused by a neglected mouth, the indigestion, the toothache, or the effects of absorbed pus, must surely lower the vitality of the developing foetus.

C. NEGLECT OF THE ORAL CAVITY DURING GESTATION

If there is much nausea during the first three months the mouth generally begins to show the results. The teeth and tongue are badly coated. The saliva is acid and ropy, and the teeth decay in direct proportion to the acidity. Cavities begin to form. Soon, if a visit is not made to a dentist, the pulps of one or more teeth may die. The

woman may suffer day and night from the abscesses around her teeth. There are cases on record where the shock from such suffering has brought on premature delivery.

If these abscesses are neglected, the pus is absorbed into the circulation in two ways, first, by mixing with the food during mastication; and, second, by being absorbed by the blood vessels in the tissues surrounding the abscess, where it is taken directly into the circulation. This poisoning may be so excessive that the foetus cannot survive. Such cases are on record.

Another source of danger is from pyorrhoea frequently termed Rigg's disease.

Pyorrhoea, its causes and cure, has been the subject of much study and experiment, and many theories have been advanced. Some think it is of systemic origin; others claim it is local. By some it is said to be bacterial, or parasitic, and by others mechanical. The most logical theory embraces them all. To explain in a few words, when a person takes at a meal more food than is needed at the moment for the upkeep of the body, part of the excess is thrown into the mouth through the saliva. It settles upon the teeth near the mouths of the ducts, particularly above the upper first molars, and on the backs of the lower incisors, and, if not disturbed, hardens.

For eight hours this deposit is so soft that it can easily be rubbed off with a dry brush, but when it remains longer, friction must be used to remove it. This is the beginning of tartar, which will continue to accumulate if not removed. As it accumulates it is less disturbed under the margins of the gums, and so increases in that direction. It presses upon the tissues beneath and causes their death by interfering with the circulation.

The invasion of the pathogenic bacteria of the mouth produces the pus. As this continues down along the side of the root the bunches of fibers which hold the tooth into the socket are destroyed. Pyorrhoea may be cured, but the fibers which are destroyed are never replaced; so, if enough are destroyed to loosen the tooth, its value is gone.

The important fact to remember about pyorrhoea is that it is preventable.

In a woman's life a time of great susceptibility to pyorrhoea is during pregnancy. Then the circulation in the gums is more sluggish, and their exercise is apt to be neglected. The woman often stops brushing her teeth at this time because the gums bleed, thinking that she will injure them.

If the dentist to whom such a case presents itself understands his business, he will reduce the inflammation by the removal of tartar, the

use of local astringents, and advise a coarser or more fibrous diet to stimulate the alimentary canal; and advise that more water be taken between meals.

The gums will be given exercise by local massage and vigorous mastication of coarse foods.

The foetus suffers with the mother by toxemia. This may interfere with its growth. No one can estimate the injury done to the developing child by the constant poisoning which goes on every day where the mother is suffering with pus pockets around her teeth. Knowing the possibility of this toxemia, the prospective mother should do everything in her power to keep her mouth clean and free from pus germs.

If the nutrition of the foetus is interfered with by this toxemia, it may result in the formation of teeth of a poor grade, which are not so resistant to caries. While this is true, it must also be remembered that other constitutional effects from the toxemia undoubtedly predispose to such diseases as scurvy, tuberculosis, rachitis, and other osteogenetic disturbances.

The first teeth begin to calcify about the seventeenth week of pregnancy, and a few weeks later the first permanent molars (the most valuable teeth of the second set) begin to form.

D. EXAMINATION AS SOON AS CONCEPTION IS KNOWN

The pregnant woman can be saved much pain and destruction to her teeth if she begins to care for them as soon as conception is known.

In this enlightened day a good obstetrician advises an examination of the mouth of his patient as soon as she comes to him, because he realizes that the healthy mouth of the mother helps produce a healthy child.

The importance of putting the mouth into as nearly an aseptic condition as possible can scarcely be overrated in its beneficial effect upon both mother and child.

All tartar should be removed and inflamed gums treated. Any cavities should be cleaned and filled. If there are many it is better to put in something temporary until the period of nausea is passed.

If any tooth is too badly diseased to save it should be removed under an anaesthetic. Other diseased pulps should be treated and roots filled. It is not advisable to have gold fillings pounded in because of the resulting nervous strain.

Remember that the dentist must be told of the woman's condition before the work is begun.

E. ADVISABILITY OF BREAST FEEDING

One of the ambitions of every woman who becomes a mother should be to nurse her child during the first year of its life. In order to be able to do so she should conserve her health in every possible way during the nine months of pregnancy. She should avoid all excitement and stimulants which are now known to have a deleterious effect not only upon the mother, but also upon the developing child. Plain, wholesome food, with plenty of fresh air and exercise, but not overwork, will greatly aid in the quest of good health.

The most eminent physicians tell us that a baby while nursing is immune to all the childhood diseases which his mother has had. This means that if the mother in her earlier days has suffered from measles, scarlet fever, whooping cough or diphtheria, or any of the diseases so common to childhood, the nursing baby will probably escape contagion if unfortunate enough to be exposed to such diseases.

F. DANGERS OF BOTTLE FEEDING

More than twice as many bottle fed babies die during the first year as nurslings. This is another of the arguments advanced for nursing a child. In using the bottle there is often a period when the baby is ill nourished because it can not digest the artificial food. If this period is prolonged and there is great malnutrition, the growth of the teeth in the tiny jaw is interfered with and the teeth may be badly shaped, with pitted surfaces. This is called hypoplasia.

From a dental standpoint the most important reason for nursing is that a better shaped mouth results.

If a child is not nursed it is more liable to have adenoids. When nursed, every little cold is noticed, and immediate measures are taken to cure it, while with a bottle-baby the cold may escape notice. Colds necessitate mouth breathing, which soon becomes a habit, and pathological adenoid tissue results from such conditions. This causes the upper arch of the mouth to become high and narrow. When a child constantly sucks away upon the nipple of a bottle or upon a pacifier, or even upon a thumb or finger, the tender upper jaw is pushed up, causing the horseshoe containing the teeth to become narrower than the lower jaw on one or both sides. This must be corrected later in life at great expense and discomfort to the child, while in babyhood it can easily be prevented.

If the child must use a bottle see that the holes are large enough and that the bottle is removed as soon as empty. It is not necessary for a child to suck something to induce sleep.

Undoubtedly these habits produce malformation of the sinuses of nose and throat, and may be productive of chronic catarrhal conditions.

Another objection to bottle feeding is that many of the foods used are deficient in lime salts and poor teeth result. If the food is too sweet it causes rapid decay of the first teeth as they begin to erupt. I have found the anterior teeth of many condensed milk babies badly broken down at eighteen months, or before all the molars were in place.

G. ORAL HYGIENE DURING PREGNANCY

At home the patient should thoroughly brush the teeth before retiring and after breakfast. If she will use the brush *dry*, placing upon the gums and brushing toward the cutting edge of the teeth, she will get a stimulating effect upon the gums, which will help restore them to health. Remember the ideal gums are hard, and as thin as a knife blade, where they hug the teeth. If two brushes are kept, so that each is used only once a day, better massage of the gums results. After using the brush dry, wet it and apply any good dentifrice. If the gums bleed after all tartar has been removed ask your dentist for an astringent mouth wash. There are many good prescriptions applicable to different conditions.

Where there is much acidity the woman should, after cleaning the teeth at night, rinse the mouth with milk of magnesia.

H. THE NURSE'S OPPORTUNITY

The work of oral hygiene has made considerable progress because of the concerted efforts of the dentists. These efforts have resulted in the foundation of great memorials like the Forsyth Institute of Boston, and the Rochester Dental Dispensary.

I had the pleasure of visiting the Forsyth Institute before its opening. It is a memorial erected by the two living Forsyths to their dead brothers. It is a marble palace on the Fenway, and was erected to care for the teeth of the poor children of Boston. Two million dollars have been dedicated to build, equip and maintain this wonderful charity. Since its erection several others have been started along more modest lines. These have all resulted from the individual work of people interested in the building of a stronger and better race.

There is no one who has a greater opportunity for advancing the cause of oral hygiene than the nurse. She can carry the work directly into the home. She should take the stand that no one need expect to retain good health with a pathological oral cavity.

A clean mouth is necessary for good health. Unhygienic conditions in the mouth may go along apparently unnoticed for years, and then suddenly show their result in some severe disorder.

A seed of some poisonous weed lies dormant, then sprouts, grows to blossoms, then to seeds, which in turn scatter far and wide and each takes root.

Oral neglect is like the poisonous weed. It would have been easy to destroy the first seed, but impossible to root out the great crop of weeds.

To you nurses I leave this message. Each day drop some little word of advice or teaching as to the care of the mouth.

Do not wait until some deed of greatness you may do.

Do not wait to shed your light afar.

To the many duties ever near you now be true,

Clean up the corner where you are.

During the discussion that followed Dr. Jordan's paper, the question was asked as to the necessity for repairing first teeth. To this Dr. Jordan replied:

The first permanent molar, the most valuable of the second set of teeth, is in position some time after the fifth year, and by the laity is most frequently thought to be a deciduous tooth, that is, a temporary tooth, and for that reason it is lost very frequently. In the examination of the mouth for the army they can only demand one tooth on each side in the clearing of the three molars involved on each side, because of this loss being so common among the line of men who apply. The deciduous teeth next to this tooth remain until the child is twelve. Now a cavity in a child's tooth will form and the pulp will be destroyed in a very short period. I have often seen the pulp dying in a tooth that, three months before, showed absolutely no sign of a cavity. So you can see that for six years the danger to the first permanent molar is very great and that accounts for the frequent loss.

The discussion included reports of dental work in schools in various cities and of the better care being now given to the teeth of patients ill in hospitals where formerly there was none.

THE ERADICATION AND PREVENTION OF BUBONIC PLAGUE IN NEW ORLEANS, LA.

By ASSISTANT SURGEON C. V. AKIN

United States Public Health Service

The presence of bubonic plague was first made known to the public of New Orleans on June 27, 1914, when Dr. Blue, Surgeon General of the United States Public Health Service, was notified of the existence