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## The Mursing of Children's Diseases.

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## LECTURE VIII. Rickets.

Rickets is one of the commonest diseases of young children, the foundation of it is laid during the first year or two of life by bad feeding, bad ventilation, and want of fresh air and sunlight. The chief deficiences in the food are in fat and proteid. The disease usually causes symptoms in the second year of life. There may be slight fever, restlessness, excessive sweating, and tenderness of the bones, so that the child dislikes being dandled about by the mother or nurse. The child may be fat or thin, but is flabby, and the muscular strength is below par, the child does not walk till late, and often cannot even sit up when nearly a year old. The teeth are cut late, very often a child having only two, or even none, when a year old.

The top of the head is flat, with the soft membranous part between the edges of the bones (called the anterior fontanelle) much larger than it should be for the age. (This should close entirely between eighteen months. and two years of age.) The projections at each side of the forehead are exaggerated, as are the eminences on the skull elsewhere, and at the back of the head the skull may be very thin and easily bent in on pressure. The sides of the chest bend inwards, and the ribs are enlarged where they join the cartillages in front. The ends of the long bones are enlarged and their shafts bent, producing bow-leg, or knockknee. These children are very liable to bronchitis and pneumonia, or to digestive troubles, as vomiting and diarrhœa, and there is a heightened sensitiveness of the nervous system, predisposing to convulsions, tetany, or false croup.

The nurse of such cases should see that the food be of proper kind and quantity. Fat in various forms should be given; cream is good, and so is cod-liver oil, which is a very easily digested form of fat. The child should have plenty of fresh air, and sea-air is specially useful. The clothing must be carefully super-

vised, the tendency to bronchitis and "catching cold" being remembered. The child should not be allowed to run about or stand if the legs show any sign of becoming crooked, and in bad cases even sitting up should be prevented till the back is sufficiently strong to support the weight—the child being placed on soft cushions in a cot or perambulator and not being nursed too much in the arms. If there be constipation, this must be combated by the usual remedies, and the doctor will probably prescribe iron for the anæmia along with cod-liver oil or some tonic.

The muscles should be strengthened by rubbing and salt-water bathing.

In cases of slight knock-knee the nurse may be instructed by the doctor to apply outside splints. These are straight splints of wood or metal properly padded, slightly longer than the limb. They are fastened by straps to the ankle and the upper part of the thigh, taking great care that they are precisely on the outer aspect of the limb, and then over the knee the middle bandage is fastened; this should be of elastic material, so that its constant effect is to straighten the limb.

In mild cases these are only necessary at night, if the child is kept as far as possible off his feet during the day, but in severe cases they must be applied day and night. The practical difficulty is to keep the splint in the proper place-that is, exactly on the outer aspect of the limb, as it has a tendency to slip round to the anterior aspect of the limb, instead of remaining on the outer side, and when this happens no traction is exerted on the knee, and the splint is useless. It goes without saying that the limb must be completely extended while the splint is being applied. If the child has any tendency to bow leg, the splint may be applied on the inner side instead of the outer, and it is much easier to manage, since there is little tendency to rotation of the splint. The preceding recommendations as to splints only apply to slight cases which the doctor may see and in which he leaves the treatment and application of splints to the nurse; in severer cases some more radical surgical treatment is necessary to relieve the deformity and prevent its increase.

[In cases of rickets district nurses often have it in their power to do good by pointing out the need of medical treatment, and also by teaching the necessity for proper feeding.—Ep.] (To be continued.)



