

## OUR PRIZE COMPETITION.

### DESCRIBE THE CHIEF ABNORMALITIES OF THE PULSE.

We have pleasure in awarding the prize this week to Miss Fairbank, West View, Bury Road, Thetford, Norfolk.

#### PRIZE PAPER.

The pulse is one of the most important guides with regard to the patient's condition; therefore it is most essential the nurse should recognize any abnormality, and to do this she must be thoroughly acquainted with the normal pulse in health. In examining a pulse four points are necessary to observe: Frequency, size, compressibility, and regularity. It must be remembered that the pulse is slightly quicker by day than by night, and also when sitting up than when lying down, and any muscular exertion will raise it.

*Frequency.*—A quick pulse occurs with a high temperature, and in inflammation or fever it is quick, full, and bounding. A pulse that, with a stationary or falling temperature, gets quicker day by day, is a sure indication of a failing heart. A slow pulse is often found when a poison, such as bile, is circulating in the blood, and it is sometimes the first symptom of commencing heart paralysis in diphtheria, and is sometimes found in old people with feeble hearts. If digitalis is being administered unusual slowness may occur, when it must be reported and the drug immediately stopped. Unusual slowness is also met with in tuberculous affections of the brain. A running pulse is one that is so frequent and so small that it cannot be counted.

2. *Size.*—In noting this the size of the vessel as well as the size of the beat must be observed. A large pulse is one that feels larger than normal to the fingers, and is usually found in febrile conditions. A small pulse is one that feels smaller than normal to the fingers, and is usually found in heart weakness, and it is also found in kidney disease. In debility and great prostration the pulse will be thready; this is an extreme form of the small pulse.

3. *Compressibility.*—A compressible pulse is one that disappears under slight pressure, and shows that the heart is not sufficiently distending the arteries with blood. A dicrotic pulse is a variety of the soft pulse, and occurs most frequently in the late stages of enteric fever. In this each beat is followed by a smaller beat, and for every beat of the heart a large and a small beat can be felt at the wrist.

4. *Regularity.*—A normal pulse should be regular in force, beat, and character. The beats

may vary in strength, strong beats being followed by weak beats, and there is not always the same interval between the beats. This is a serious condition; it is usually found in mitral disease. An intermittent pulse may also be classed under the heading of an abnormal pulse. In this the pulse occasionally drops a beat; it is not a dangerous symptom.

#### HONOURABLE MENTION.

The following competitors are accorded honourable mention:—Miss S. A. Cross, Miss Gladys Tatham, Miss B. Walker, Miss H. Mackenzie, and Miss O'Brien.

Miss S. A. Cross writes:—

It is more convenient to take the pulse at the radial artery just above the wrist, though, sometimes when it cannot be felt there, it may be perceptible at the carotid, temporal, or femoral arteries, because large arteries retain pulsation longer than the smaller.

When examining a pulse three fingers should be placed lightly over the artery. It is not merely necessary to ascertain its rate, but also its character.

It is apt to be more rapid when there is fever but this rapidity and severity varies in the different types of fevers. In scarlet fever the pulse is usually quicker than in enteric, while in rheumatic fever it is slower than in either of those.

It is important to note if the pulse is "large" or "small"; it may give a large or a small impulse to the fingers.

The "large" pulse is common during a feverish attack, and is due to the weakening effect produced by high temperature. This weakness has its influence upon the walls of the arteries, just as upon the muscles of the body, and so the arteries cannot contract after their usual manner, but, by relaxing, cause the blood vessel to become larger in calibre. It is this which gives rise to what is known as a "dicrotic" pulse.

The "small" pulse gives a very slight pressure to the fingers because the artery is not being properly filled with blood. If it becomes so small as to be hardly perceptible it is termed a "thready" pulse.

Miss H. Mackenzie draws attention to the acceleration of the pulse caused by alcohol, tea, coffee, and tobacco. Individual susceptibility varies, but the increase of pulse rate after a pipe of tobacco in the morning may be from 15 to 20 pulsations an hour.

She further points out that intermittence at the wrist does not necessarily mean intermittence at the heart. The beat may have been

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