

which comes from a pint of ice water taken in excess of metabolic needs, will be more than counterbalanced by the heat produced in the circulatory and excretory systems in getting rid of this overplus.

For the getting rid of body heat most people know enough to go in out of the sun and to search for a breeze, natural or artificial. Circulating air hastens the loss of heat, both by radiation and evaporation—helps them so greatly that we must beware any sense of chill, as a warning that heat loss is proceeding too rapidly. We must also be sensible and note Nature's warning in the use of cold baths. It is hardly to the purpose to remain in cold water so long that the body must bring her emergency heat-producing machinery, namely, shivering, into play. Nature must also be consulted in the use of iced drinks, a sense of discomfort, a bad taste, or a coated tongue, should warn us that the mucous membranes cannot stand such rapid chilling. Some persons seem to be able to take large quantities of ice water, with or between meals, without apparent harm, but we are not all built in that way.

As for clothing, that which is thinnest, and which enmeshes least air, will give best results. Though there has been some attempt at discountenancing the use of white clothing, this colour still wins out in practice, and carries out the physical theory that it reflects rather than absorbs the light and heat waves which reach it. The experiments with coloured garments in tropical lands have not as yet been conclusive that they are of advantage.

To summarise, we may make our prescription for keeping cool read as follows:—

Take thou of:

Muscular exercise—as little as possible.

Rest and sleep—as much as possible.

Digestible foods—only a sufficient quantity.

Indigestible foods—sufficient for bulk.

Cold drinks—with care and moderation as to temperature and quantity.

Hot sun—a minimum amount.

Shade—a maximum amount.

Air in motion—enough for comfort.

Cold baths—not overdone.

Clothing—light shades, light weight, and of cloth which does not readily hold air among its fibres.

In this day when it is becoming more apparent that mind is not a thing wholly separate and apart from the body, we must not fail to add to the above prescription the postscript that he who would keep at his coolest must also avoid those re-actions of the brain which would make him "boil over," no matter what the provocative stimulus.

Our Prize Competition.

We have pleasure in awarding the prize this week to Miss Florence Bloy, St. George's Infirmary, Fulham Road, S.W., for her article printed below in answer to the question:—

WHAT ARE THE USUAL CAUSES OF HYPO- DERMIC ABSCESES?

An abscess is the result of acute inflammation, the latter being a protective action of the body against irritation caused by bacteria.

Abscesses which arise on the site of a hypodermic injection may be caused in two ways:

1. By bacteria which are actually introduced by, or along, the passage made by the needle.

2. By injuring the vessels during the operation, thus promoting the activity of the bacteria or toxin already latent in the tissues.

In the first case the pus formation is due to lack of asepsis. Some part of the apparatus, the hands of the operator, or the skin of the patient, was not sterile, therefore the needle carried into the blood stream germs which set up an inflammation. Air which, owing to carelessness in expelling same from the syringe previous to injection, may carry with it infection. The poison may enter after the actual operation; germs from patients' clothes, etc., entering through the puncture caused by the syringe.

It is the nurse's duty by careful sterilization of everything connected with the injection to endeavour to prevent this kind of infection. The syringe and needle (the former of glass) should be boiled before use, and the area round the point of insertion on the skin of the patient should be thoroughly cleansed and then made as aseptic as possible by means of the application of an antiseptic lotion.

In abscesses caused in the second way the infection is already in the blood, and the passage of the needle by damaging the vessels causes the defence that the tissues have maintained against it to break down locally. The leucocytes probably find emigration through the damaged capillary walls comparatively easy. The exudation of serum and leucocytes always precedes the formation of pus—a collection of which forms an abscess.

The tendency to form such abscesses as these will disappear as the general condition of the patient improves, by the elimination of the bacteria and the products from the system.

We highly commend the papers of Miss E. Bleazby, Miss E. Johnson, Miss P. Saunders, Miss Macfarlane, Miss Thompson, and Miss L. James.

Miss James mentions "impure drugs" as

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