

OUR PRIZE COMPETITION.

ENUMERATE THE DIFFERENT MEANS OF REDUCING FEVER.

We have pleasure in awarding the prize this week to Miss J. G. Gilchrist, Gilmore Place, Edinburgh.

PRIZE PAPER.

The principal methods employed for reducing fever are—by the use of antipyretic drugs; by cold applications to the surface of the body; by the application of heat to the skin. All methods aim at stimulating the natural functions in their work, and thus assisting in the elimination of the toxin in the blood causing the condition of fever.

Regulation of bodily heat is controlled by a delicate system of mechanism connecting the brain and spinal cord, which is the first part to be affected by the presence of any foreign element in the blood, the abnormal manifestation being either a rise or fall of temperature, in most cases the former.

In health the natural functions of work, waste and repair co-operate with each other, the production of heat which takes place in the muscles and glands by exertion being balanced by loss of heat by evaporation, respiration and excretion. Fever or rise of temperature is brought about by the entrance of pathogenic organisms into the bodily system, which act by the formation or production of poisonous substances; the toxin becoming absorbed into the blood, and carried to all parts of the body, reacting upon, and affecting by chemical changes, the heat regulating and other sympathetic systems. Drugs as a means of reducing fever are useful when the patient is difficult to handle, they quickly reduce the temperature but have a depressing effect on the activities of the excretory glands; quinine is one of the safest, being given up to the amount of 15 grs. Mindererus Spirit is useful in the case of children. Antipyrin and others are also employed. The application of heat is sometimes employed—the object being to bring an increased flow of blood to the body surface, by dilating the vessels in the skin, and afterwards exposing the surface to the air. The temperature of the water used to sponge the patient must be 110° F. It is not so efficacious as the application of cold. Cold applications are the most beneficial and safest means of reducing temperature. When applied to the skin, the internal organs are stimulated to increased action; the effect is soothing to the nervous system; the toxic substances are hastened out

of the system; copious drinks of cold water and fluids also help in flushing the tissues and increasing diuresis.

The principal methods of applying cold water are as follows—(a) *Sponging*.—The bed being protected by mackintoshes and towels, and the patient's clothing removed, the body is stroked with sponges dripping with iced or cold water, these should not be wrung out as they would then be only moist and tepid to the touch. (b) *Rubbing with ice*.—Instead of sponging the body may be rubbed with blocks of ice. (c) *Cold pack*.—The patient is wrapped or packed in sheets wrung out of iced water, one being placed underneath him and the other on the top securely tucked round him, so as to fit closely to the whole trunk. The application may either be renewed after a short interval, or the sheets may be sprinkled with iced water until the temperature has fallen to the required degree. The duration of the pack is as a rule 10 minutes, being repeated about four times, the patient being dried and made comfortable in bed afterwards. Towels wrung out of cold water and applied in the same way may be used if sheets are not available. (d) *Cold bath*.—The patient is immersed in a bath of water at a temperature of 65° to 70° or if there is much danger of shock the water may be gradually cooled down from 90°, though this is not very easy to do. If the bath can be brought to the bedside it is most useful; an adult may be lowered on a stretcher which fits into the bath, which is covered by a blanket during the time the patient is in the water. The period of immersion depends on the patient's condition, 10 to 15 minutes being sufficient as a rule, the extremities being rubbed during the time. The patient on returning to bed is quickly and lightly dried, and if shivering, a hot drink may be given and a hot bottle applied to the feet. (e) *Cradling*.—The ice cradle supports the bed clothes which are turned back from the feet and raised. Small tin buckets of ice are attached to the cradle, being suspended over the patient's body, and covered with lint to avoid water drips. It is difficult to keep the feet warm and comfortable in this method. (f) *Ice cap or coils*.—Flexible tubes in the form of a cap can be fitted on to the head, which is first covered with a piece of lint. A continuous stream of iced water circulates through the coils keeping the head cool.

Another method of controlling temperature in slight cases is that known as "ambient air," in which the patient is covered only by a single sheet, cool air passing over him continuously.

Special precautions in reducing fever by any

[previous page](#)

[next page](#)