

or higher (104° Fahr.), the treatment by cold bath is to be commenced, and continued as long as the temperature remains so high. The effect and object of the bath is to lower the temperature—a lowering which does not reach its minimum immediately after the use of the bath. Hence the great caution required in its use. The diminution of bodily heat appears to be largely due to the excitement of skin transpiration—a condition brought about when the bath has a favorable influence. If the skin be moist and perspiring, the use of a cold water bath is not required.

“Among the many different way of applying cold water in fevers, Kuchenmeister gives the preference to Currie's *cold affusion*—the patient merely sitting in an empty tub, and having from four to six buckets of cold water (40° to 50° Fahr.) poured over him, from a height of about two feet. This form of administration is especially useful where cerebral symptoms are severe, with depression of the motor energy of the brain and cord, threatening paralysis of the heart, or severe degrees of bronchial complication with passive collection of large quantities of thick secretion in the tubes. In the unconsciousness of ‘sun-stroke’ it is thus useful. If the sitz or shallow bath be used, the patient must have his whole chest, front and back, well rubbed with towels till the skin becomes red, as he sits in the tub. It has been so used with benefit at an early period of *enteric fever* and *scarlet fever* (*The Practitioner*, July, 1869, p. 45.) The frequent and careful use of a thermometer for determining the temperature of the patient's body is required as affording the only correct measure of the severity of the fever. It is as necessary to the physician as the compass is to the mariner at sea.

“Sometimes the patient may be laid bodily in a bath of a temperature of about 95° Fahr., which is gradually cooled down to 86° Fahr. or 77° Fahr.: as patients get stronger the bath used colder and colder, 77° or 86° Fahr. After the immersion, lasting from three to fifteen minutes or even an hour, and regulated by effects as indicated by the thermometer, the patient is dried at once and put to bed and covered as usual; and if the feet are cold, warm bottles, or a hot brick enveloped in flannel, may be applied. This method, now being carried out in some parts of Germany, does not recommend itself at first sight, but it may have advantages which we in this country have not yet learned to appreciate. The proper time for the use of the remedy must not be later than the first few days of the fever, and in scarlet fever when the skin is hot and the rash bright and red. The patient being stripped should have four or five gallons of very cold water poured over him (affusion); and when the heat of the surface returns, the application may be repeated and renewed again and again. Its good effect is to lower the temperature, to lessen the frequency of the pulse and the respiration, to render the tongue moist and soft, to diminish or remove stupor, to procure sleep, and sometimes it may bring about a perspiration which brings relief. But, if there be much nervous irritability, and especially in delicate females, the *shallow bath*, as less exciting than the *cold affusion*, is to be preferred. The

patient then sits or is supported in an open bath, about six feet long, in a depth of water from six to twelve inches, having a temperature of from 60° to 80° Fahr. The extremities and trunk must be well rubbed by the assistant, while water of the same temperature as the bath is gently poured over the head. The patient may remain in this shallow bath from five to forty minutes, till the temperature of the body is reduced. In cases of delirium with a high bodily temperature (104° Fahr.), and prolonged sleeplessness, while the patient is held in warm bath (92° to 98° Fahr.), ten, twenty, thirty, or more bucketfuls of cold water (40° to 60° Fahr.) are to be poured slowly over the head, hot water being constantly added to the immersion bath, so as to maintain its temperature at 92° to 68° Fahr. A refreshing sleep is sometimes the result.

“By using the *douche*, the cold water is made to impinge on some part of the body (head and shoulders, or individual joints, or any part in succession, for instance), with considerable force, and the nervous impression produced is correspondingly great—too great and uncontrollable to admit of its frequent employment in this way. Where *delirium* is furious it may sometimes be so quieted, and its good effects become visible if the pulse and breathing improve, or even continue as they were before commencing the *douche*. One good method of applying it is to place the patient in a warm bath, and then apply the cold *douche* to the head as described (Ringer).

“Great relief may also be obtained from the severe headache which is met with in acute specific fevers, if the water be employed as recommended by Prof. J. Hughes Bennett: ‘A wash-hand basin should be placed under the ear, and the head allowed to fall over the vessel, by bending the neck over the edge. Then, from a ewer, a stream of cold water should be poured gently over the forehead, and so directed that it may be collected in the basin. It should be continued as long as agreeable, and be repeated frequently. The hair, if long, should be allowed to fall into the cold water, and to draw up the water by capillary attraction.’

“Sucking of ice, also, is most grateful to fever patients; it allays thirst. Cold sponging, or by tepid water, of the body is also resorted to with great relief in fevers. Sponging with very hot water is similarly useful. It will sometimes bring about relief by perspiration; while at the same time it soothes the restlessness and favors sleep (Ringer).

“Bloodletting or hemorrhage also tends to reduce temperature; but bloodletting can never be tolerated in specific fevers, such as *typhus*, *typhoid*, *scarlatina*, and the like.

“*Infusion of digitalis* has been found by Wunderlich to have a wonderful influence in reducing and moderating the temperature in many febrile states, such as enteric fever. Its most obvious action in small doses is to depress the force of the heart. The dose should therefore be cautiously regulated; it must not be repeated too soon, nor be increased, if it should not operate at once.

“*Alcohol* is another agent, shown by the experiment of Professor C. Binz, Parkes, and Assistant