

bed until the temperature again rises to 103°, when another is given. Rigors of a severe character often attack patients after the bath. In all cases there is more or less shivering. These symptoms do not appear to indicate any grave constitutional disturbance. The baths may be repeated eight times in the twenty-four hours, if necessary, but not oftener. Many cases require this number at first to keep the temperature down, but in a few days a less number is needed.

The immediate effect of the bath is to quicken the pulse, which, however, soon becomes slower and fuller. Many patients who dread this mode of treatment at first, will soon ask for the baths on account of the comfort they feel from them. Baths are contra-indicated in fleshy people with weak hearts or a tendency to bronchitis. They are also contra-indicated in cases of intestinal hemorrhage, peritonitis, or threatened perforation, because in such condition it is necessary to keep the patient as quiet as possible. It was at one time supposed that the baths produced a tendency to intestinal hemorrhage by congesting the mucous membrane of the bowel. Experiments upon the lower animals, however, have proved that immersion in cold water blanches the mucous membrane of the intestines, and could not therefore increase the danger of hemorrhage.

Baths are also contra-indicated in nervous cases, when they are much dreaded.

The pneumonia and bronchitis which directly result from the typhoid fever do not contra-indicate the use of baths; in fact the benefit obtained in such cases has been most marked. In cases also in which the pulse is rapid, and there is a marked typhoid condition, a cold bath has often a very bracing effect.

The statistics obtained since the introduction of this plan of treatment are as follows, quoted largely from Dr. Cayley's Croonian lectures:

In Basle, under the expectant treatment, there were out of 1710 patients 469 deaths, a rate of 27.3 per cent. Under a partial antipyretic treatment there were out of 982 cases 159 deaths, a rate of 16.2 per cent. Under the cold bath treatment, out of 1483 patients there were 130 deaths, a rate of 8.8 per cent.

IN KIEL—	No. of Patients.	Deaths.	Per cent.
Under expectant treatment	330	51	15.4
Under cold baths	160	5	3.1

IN STETTIN—	No. of Patients.	Deaths.	Per cent.
Expectant treatment	1591	405	25.6
Cold baths	121	5	4

  

PERCENTAGE OF DEATHS—	Before.	After.
Bartels and Jurgensen	15.40	3.10
Liebermeister and Hagenboch	16.10	8.80
Pfeuffer and Lindwurm	13.20	5.40
Hospital in Heidhausen	13.50	4.80

MORTALITY IN THE PRUSSIAN ARMY, UNDER COLD BATH TREATMENT,

According to the years, from 1874 to 1880.

Year.	Patients.	Deaths.	Per cent.
1874	2735	329	12.0
1875	3620	408	10.9
1876	2747	298	10.8
1877	2081	206	9.8
1878	2112	190	8.9
1879	1741	163	9.4
1880	2534	226	8.9

The previous mortality under ordinary treatment had been 25 per cent. This table also shows a gradually diminishing rate of mortality year by year, a fact which is probably due to greater attention to detail in carrying out the system. This, like any other active form of treatment, must be conducted with care and skill if good results are expected, and if carelessly carried out much injury may ensue.

Brand's latest statistics give the following percentage of mortality:

Cases in family practice	1.0 per cent.
Military hospitals	3.4 "
Consultation cases	3.4 "
Civil hospital	5.0 "

The general result shows that out of 8141 patients treated by cold baths there were but 680 deaths, a rate of 7.4 per cent., while under all other modes of treatment, including other forms of antipyretics, the rate has been over 16 per cent.

It is then conclusively shown, so far as it can be by statistics, that the mortality under the cold bath treatment is lower than under any other method, and much lower than under the expectant plan.

The vigorous rubbing constantly kept up by the attendants is a very important element in the process, and that thereby the bath not only lowered the temperature, but acts also as a general tonic to the nervous system. The rubbing at the same time prevents the contraction