

A Study of Measuring Body Temperature

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TEMPERATURE, pulse and respiration are often spoken of as cardinal symptoms because of their importance in indicating the physical condition of the patient. Temperature indicates the heat balance of the body and is important for efficient physiological functioning. Alternations in function of the body are often reflected in body temperature.

Taking the temperature is one of the first used in trying to assess the patient's condition, and it must be accurately and conscientiously observed and recorded. It is the nurse who is primarily responsible for taking the patient's temperature and recording it.

The temperature may be taken in the rectum, axilla, mouth or groin. The thermometer must be kept where it is completely surrounded by body tissues, and where there is a good blood supply in order to get a fairly accurate reading. The thermometer should be left *in situ* for the required length of time for registering the temperature.

How long should the thermometer be kept in positions, is a question often asked by nurses. There is variation in practice and controversy of opinion about this among nurses, even though this is one of the most widely practised nursing functions. Some people ask why you keep a thermometer in the mouth more than half a minute when the thermometer is a half-minute one. These are questions which led me to make a small study on temperature taking.

It is not necessary to go into detail about the technique and principles of measuring body temperature, since my aim here is to show the time that should be allowed to register the temperature ac-

curately. In the study which I undertook, many patients' temperature were taken, using different thermometers. Varying periods of time was allowed for registration of temperature in the same patient, and a reading was taken each time. In

a few patients, axillary, mouth and rectal temperature was checked (in the same patient) in order to find out the variation in different body areas. The following chart shows the reading, and the duration for which the thermometer was kept.

Patient's Number	Time taken to mark the highest temperature	$\frac{1}{2}$ mt.	1 mt.	2 mts.	3 mts.	4 mts.	5 mts.	6 mts.	7 mts.
Mouth temperature									
1.	2 mts.	99	99 ⁶	99 ⁸	98 ⁸				
2.	3 mts.	97 ²	97 ⁶	97 ⁴	98 ²	98 ²			
3.	2 mts.	98 ²	99 ⁴	100	100				
4.	2 mts.	99 ⁸	100	100 ⁶	100 ⁶				
5.	3 mts.	99	99 ²	99 ⁴	99 ⁶	99 ⁶			
6.	3 mts.	97 ⁶	98	98 ⁴	98 ⁶	98 ⁶			
7.	3 mts.	97 ⁶	98	98 ⁸	99 ²	99 ²			
8.	3 mts.	100	100	100	100 ²	100 ²			
9.	1 mts.	100	100 ²	100 ²	100 ²	100 ²			
10.	2 mts.	101 ⁶	101 ⁸	102	102				
Rectal temperature									
1.	3 mts.		101 ²	101 ⁶	101 ⁸	101 ⁸	101 ⁸		
2.	1 mts.		98	98	98	98	98		
3.	2 mts.		102	102 ²	102 ²	102 ²	102 ²		
4.	4 mts.		100 ⁸	100 ⁸	101	101 ²	101 ²		
5.	4 mts.		97 ⁶	98 ²	98 ⁴	98 ⁶	98 ⁶		
6.	3 mts.		100 ²	100 ⁴	100 ⁶	100 ⁶	100 ⁶		
7.	4 mts.		98 ⁸	100	100 ²	100 ⁴	100 ⁴		
8.	3 mts.		103 ⁸	104	104 ²	104 ²	104 ²		
Axilla Temperature									
1.	4 mts.		101 ⁸	102	102 ⁴	102 ⁶	102 ⁶		
2.	4 mts.		100	100 ⁶	100 ⁶	100 ⁸	100 ⁸	100 ⁸	
3.	4 mts.		101 ⁸	102 ⁴	102 ⁴	102 ⁶	102 ⁶	102 ⁶	
4.	3 mts.		99 ²	100	100 ²	100 ²	100 ²	100 ²	
5.	5 mts.		98	99 ⁴	99 ⁶	99 ⁶	99 ⁸	99 ⁸	
6.	5 mts.		99 ⁶	100 ⁴	100 ⁸	101	101 ²	101 ²	
7.	6 mts.		101 ⁶	102	102	102 ⁴	102 ⁴	102 ⁴	
8.	3 mts.		98 ⁴	99 ⁴	99 ⁶	99 ⁶	99 ⁶	102 ⁶	102 ⁶

Method of taking temperature

Mouth (1) When the temperature is taken by mouth, be sure that the patient keeps the mouth closed and

that the thermometer is kept under the tongue. In two patients the temperature marked at the end of two

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