

What's normal pH...

There are a number of body systems which all have their own specifically preferred pH. Overall, the body's internal chemical environment normally changes from a weak acid to a weak base within a 24-hour period, usually more acid at dawn and most base at sunset. These physiological changes occur on a sine curve during this period. The slightly acid time period early morning: pH < 7.0 is optimal for the activity of the nerves, hormones and neurotransmitters such as adrenaline, thyroxine, histamine, acetylcholine and other biogenic amines. In this pH, the acidic connective tissue substances (stored acidic wastes) are dissolved by the hyaluronidase into liquid form and thereafter excreted from the body as wastes.

Blood

pH:

The bloodstream is the most critically buffered system of the entire body, far more sensitive than any other. Arterial and venous blood must maintain a slightly alkaline pH: arterial blood pH = 7.41 and venous blood pH = 7.36. Because the normal pH of arterial blood is 7.41, a person is considered to have acidosis when the pH of blood falls below this value and to have alkalosis when the pH rises above 7.41.

Figure 3. Range of Arterial pH Values

ACIDOSIS pH = 1 to 7.40	NEUTRAL pH = 7.41	ALKALOSIS pH = 7.42 to 14.0
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Interstitial fluids and connective tissue pH:

A normal pH in these areas is 7.34 and 7.40, a slightly more acid profile, because body cells dump as much free hydrogen (H⁺) as possible, buffering the blood as much as possible. However, pH in these areas can dangerously drop to concentrations of pH = 5.0.

Urine pH values:

In a pH balanced body, urine is slightly acid in the morning, (pH = 6.5 - 7.0) generally becoming more alkaline (pH = 7.5 - 8.0) by evening in healthy people primarily because no food or beverages are consumed while sleeping. Whereas, during the day the body buffers the pH of the food and beverages consumed by releasing electrolytes and the pH level goes up. This process allows the kidneys to begin the elimination process slowly.

Outside the range implies that cells are being burdened with caustic pH fluids within and without surroundings. Long term experience outside this range is unhealthy. However, the pH of urine can range from an extremely unhealthy low of 4.5 to a high of 8.5, which it tolerates a little easier, depending on the acid/base status of the extracellular fluids. A high pH value may indicate the body is over buffering to compensate for a physiological system that is too acidic.

Figure 4. Range of Urine pH Values.

UNHEALTHY pH < 6.0	NEUTRAL pH = 6.5 TO 8.0	UNHEALTHY pH > 8.5
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Generally, when urine pH is 6.0 and below for extended periods of time, it is an indication that the body's fluids elsewhere are too acid, and it is working overtime to rid itself of an acid medium. Thus, when urine pH is normal, then the blood pH is normal, but when the urine pH is overly acid, the body releases too many electrolytes to keep the pH level normal and maintain life. Easy to take urine buffer test strips are available to indirectly determine the safety of all body fluids, including blood.

Results may vary. These statements have not been evaluated by the U.S.A. Food and Drug Administration and this product is not intended to treat, cure or prevent disease.