

Yulia Osypenko

A.O. Kuzmenko, scientific supervisor

A.O. Kuzmenko, language adviser

Dnipropetrovsk Medical Academy of the Ministry of Health of Ukraine

The Influence of Air Humidity on the Healing of Wounds

Humidity is the main parameter of the environment, along with the temperature and air velocity, which affects the evaporation of water from a wet or wetted surface. For humans, the relative humidity of 30-60% refers to the hygienic norm. This moisture provides normal life activity of the body. It promotes moistening of the skin, mucous membranes of the respiratory tract and inhaled air, maintains the constancy of the humidity of the internal environment of the body. Air, the relative humidity of which is below 20%, is estimated as dry, from 71 to 85% - as moderately wet, and more than 86% - as strongly moist. Humidity less than 20% is accompanied by evaporation of moisture from the mucous membranes. This leads to a feeling of dryness. Humidity maintains the density of oxygen in the atmosphere, affects heat exchange and sweating. Wet air softens the skin and moisturizes the body.

Particularly sensitive to high humidity patients with essential hypertension and atherosclerosis. In most cases, exacerbation of diseases of the cardiovascular system occurs at high relative humidity (80-95%). With a sharp change in temperature, outbreaks of acute respiratory infections occur. On the other hand, high air humidity increases the adverse effect of both high and low temperatures.

There are many reasons of wounds healing at different rates. It depends on the type of wound, as well as on the individual characteristics of the patient - age, nutrition, medications are taken.

Regardless of the type of wound and the degree of tissue damage, the healing process consists of three phases: purification, granulation, epithelization. At each stage, it is necessary to maintain the optimum humidity of the environment. This will prevent the surface of the wound from drying out and its suppuration. Back in 1962, Dr. George D. Winter discovered that epithelization (the formation of a new epithelium at the site of damage to the skin or mucous membrane) occurs twice as fast in a moist environment than in a dry one (under a crust). Also, under the condition of optimal hydration, the risk of scarring and scarring is much less, and the change of dressings is painless.

Humidifier can be used to humidify the environment at home. Before using it, people need to check the purity of the filters to avoid the spread of bacteria and infection of the wound.

Thus, the humidity of the air has a significant effect on the rate of wound healing. This parameter is used in medicine for medical purposes. The main thing in this method is the correct approach and the accuracy of determining the required humidity.