

Hyperemia has a solvent action on granulation and inflammatory material.

Water and all soluble substances are absorbed by blood vessels, while bodily elements, as fat, are absorbed by the lymph vessels.

Bone and cover epithelium are increased by hyperemia, and the passive form is preferable. Organs with active functions require other stimuli in addition, and as work is done by oxidation, arterial blood is required. Among many examples is one recorded by Helfreich, who, in a girl of 16, with an increase of 3 cm. in her leg from a chronic ulcer, by the aid of hyperemia, caused the other to elongate 2 cm.

Bier says: "As for myself, I have not the least doubt that arterial and venous hyperemia relieve pain; that both are solvents; that arterial hyperemia absorbs, and that passive cures infectious diseases, for I have seen this with my own eyes innumerable times."

To produce active, or arterial, hyperemia, Bier advises hot-air apparatus, at a temperature of 212 to 240 degrees F., one or two hours daily.

If applied to an extremity, the body temperature rises 2 degrees, and subsides in 1 1-2 hours.

Watery and bloody effusions are readily absorbed, and without immobilizing.

The treatment is advised in all forms of chronic stiff joints, but passive hyperemia is also effectual in these cases.

In eight rebellious cases of trigeminal neuralgia, five were cured with the hot air.

I have recently treated a gentleman for a tender stiff ankle, following a compound fracture of the leg one year previously. It and the foot were greatly swollen, tender, and almost immovable. Under chloroform, I was unable to move it. One hour daily at 240 degrees produced an astonishing improvement. In two days the weight could be borne without pain, and in ten days it had almost entirely regained its normal size and freedom of movement. After each application of heat and passive movement, the various joints were felt to move, and a grating noise was distinctly audible.

The hot-air apparatus gives instant relief in sciatica, lumbago and pleurisy.

A personal experience may be interesting. A sharp attack of pleurisy rendered me almost breathless, and the hot-water bag gave no relief. Hot air at 240 degrees gave complete relief in 10 or 15 minutes, and there was no return of pain.

Passive hyperemia, by means of a constricting bandage, was first used by Ambrose Paré to promote the formation of callus.