

Ice vs. Ice Packs

Crushed ice packs do a better job at cooling the body than chemical or gel packs, because they last longer and are able to draw more heat out of inflamed tissue. The important difference is that ice packs undergo phase change, allowing them to last longer at an even temperature, creating a more effective treatment. Most chemical or one-time-use packs and gel packs do not undergo phase change. They quickly lose their ability to transfer heat, limiting their effectiveness to reduce swelling. Their short duration of cold is not long enough to produce numbness, also reducing their ability to relieve pain.

Therapeutically, the temperature of ice water (32 degrees F) is ideal for treating acute inflammatory conditions. Ice is always 32 degrees, until it melts. Freezer packs can start off at temperatures well below freezing, and end up well above 32 degrees by the end of an icing session.

Additionally, cold packs from a freezer should never be placed directly on the skin, as this can lead to frostbite, depending on the starting temperature of the pack. Ice should not be applied for more than 10-12 minutes to avoid reflexive constriction of the surrounding muscles and dilation of the blood vessels to rush blood into the area, which could increase inflammation, particularly in the extremities.