

TOPIC: EMERGENCY FIRST AID CARE FOR BURN INJURIES

It is now widely recognized that early cooling of a burn, no matter the size, will reduce the depth of the burn. Cooling with water, or with Water-Jel, also puts out the fire. Putting out the fire stops the thermal insult. In short, early cooling fulfills the American College of Surgeons' recommendations and those of the American Burn Association. The first principle of emergency burn care is to remove the source of the thermal injury and cool the burn.

There is still some reluctance in certain quarters to the cooling of a burn of any size. This harkens to the 1930s when burns were packed in ice or bathed continuously in ice water. This caused severe vaso constriction and at best made the burn deeper and at worst caused amputation of the involved limbs or hypothermia. The resulting hypothermia caused cardiac arrhythmias that could result in cardiac arrest. The thought and teaching in this matter has lingered and adversely affects good burn care.

Early cooling of a burn can be accomplished with water and some sheets or a blanket, but these may be inconvenient or unavailable in an emergency situation. Water-Jel, which is deionized water mixed with additives that greatly retard evaporation, is impregnated in large amounts into wool blankets or medical grade, non-woven dressings. Because the product consists of 96% water, it cools the burn; since it is water-based and water-soluble, it will not stick to the wound the way petroleum-based ointments will. And when the bacteriostatic Fire Blanket or the Sterile Burn Dressings are placed over a burn, they can help prevent airborne contaminants from infecting the wound.

These products have been widely adopted by first responders, including EMS, Occupational Health Physicians, Nurses, Fire Departments and Industrial Safety Professionals. Water-Jel is widely used in industrial plants, utility companies, food service settings and the military. The Navy and the Marines employ it in shipboard fire fighting gear, corpsman's equipment and individual combat first aid kits (the last item mainly for the control of white phosphorous injuries so commonly seen in modern day warfare). The three principles of treating burns are keeping them clean, keeping them moist and avoiding mechanical trauma. Water-Jel is not a treatment, it is a device that cools the burn, relieves the pain, and helps prevent airborne contamination of the wound.

It keeps the wound moist and allows that moisture to be the treatment. Because it can easily be rinsed away, there is no danger of further mechanical trauma.

Should you have any further questions regarding the use of Water-Jel as a first aid device for burns, I would be pleased to answer them for you.

H.D. Peterson, D.D.S., M.D.

Medical Consultant

Tel: 512-328-2016

Dr. Peterson is a medical consultant for Water-Jel Technologies. He was Director of the North Carolina Jaycee Burn Center at University of North Carolina Hospitals and Professor of Surgery, University of North Carolina School of Medicine, Chapel Hill, North Carolina from 1983 to 1998 and Director Emeritus from 1996 to 1998. Dr. Peterson was appointed as the Oliver R. Rowe Distinguished Professor of Burn Surgery, Dept. of Surgery, School of Medicine, University of North Carolina, Chapel Hill, NC from 1983 to present. Dr. Peterson was also Chief, Plastic Surgery Service, Walter Reed Army Medical Center, Washington, D.C from 1997 to 1983 and Deputy Commander, Plastic Surgeon And Chief, Clinical Division, USA Institute of Surgical Research, Brooke Army Medical Center, Ft. Sam Houston, Texas from 1973 to 1977.