

# Frozen

One telemarker finds out the hard way how to treat frostbite in the backcountry

by Megan Michelson

Last April, Paige Brady, fresh off her victory at the 2010 Telemark Freeskiing World Championships at Alyeska, Alaska, flew into the Hayes Glacier in Alaska's Tordrillo Mountains. She went with a couple of friends to spend a week backcountry skiing from a base camp. Toward the end of their trip, they got back to camp at around 10 p.m. after a long day of skiing. "We had amazing weather. It wasn't too cold during the day, but as the sun crept behind the mountains, the temperatures started to drop," Paige says. "I knew my feet were cold, but not that cold."

**The next day, her toes** started to swell and she had difficulty getting them into her already too-tight telemark boots. "When we got back from a short ski, I took off my boots and the skin of my big toe looked like big deflated blister," she says. "About 15 minutes later I looked at my foot again and sure enough, there was a massive blister." Her friend Zach, who'd suffered from a frostbitten foot seven years earlier, helped Paige build a footbath with a Ziploc bag, some foam padding, duct tape, and warm water. She wasn't able to ski again for weeks but at least the warm water prevented the damage from getting any worse. And it looks like Paige will be shopping for new ski boots soon: "I knew my ski boots were too small," she says, "and I feel stupid for not doing anything about it."



Paige Brady warming her frozen tootsies.



Under the missile-toe. | photos: Megan Michelson

## ACCORDING TO THE EXPERTS...

**Paige's makeshift frostbite treatment** was actually right on target, according to Gordon Giesbrecht, a professor of thermophysiology at Canada's University of Manitoba who literally wrote the book on frostbite (his 2006 book is called *Hypothermia, Frostbite and Other Cold Weather Injuries*). Here are Giesbrecht's tips for skiers on preventing and treating frostbite.

**1: Always wear and bring** lots of insulation and layers of clothing. And make sure your clothing isn't too tight, especially your boots (editor's note: Paige, that means you!). On your hands, it's best to have mittens, not gloves.

**2: You want to make sure** your clothes don't get wet. Natural wool or natural synthetic materials work well. Anticipate heat changes in your body before they happen, so if you're going to be hiking uphill and sweating, take off a few layers beforehand so you

don't sweat through them.

**3: If you're planning a big trip** somewhere extremely cold, build up your exposure to the cold. You will develop more of a tolerance. Start with short trips and slowly increase the duration.

**4: If you're starting to feel** the onset of numbness in your hands or toes, stick them in your armpits or your friend's armpits. That's called passive rewarming and it's the best thing you can do with limited resources.

**5: Never rub your hands or feet** if you think you have frostbite. That will only risk damaging the frozen tissue. And never put your frozen parts up to a dry heat source, like a fire or oven. If you can't feel your hands, you could easily burn them by doing that. The only way to safely actively rewarm your frozen limbs is by soaking them in warm water, no hotter than 104 degrees Fahrenheit.