

I'm short-sighted. Without eye correction I wouldn't be able to build a snowman, let alone do what I do safely. Snow falls any month of the year in the Arctic. Spectacle frames freeze to my face up here, and it's not a good place for contact lens solutions either.

Why? By November, household freezers are no longer needed. Freezers run at -22°C , and outside it drops to -40°C . Christmas is always white, lakes and rivers freeze with ice 16 feet thick and snow has to be cleared for trucks and cars to drive over. And then there is the wildlife. Wolves worry communities every winter, prompting dogs to be locked away and rabies posters to be plastered all over the town. Wolves slaughter dogs, or infect them with rabies. I've seen rabies, it's horrid and frightening. Children on their way to school are always at risk and loose dogs, infected or not, are shot on sight.

The ground is frozen the year round, and the ocean freezes too. At -33°C , in 33kph winds, human flesh freezes in 33 seconds. If you are outside and you close your eyelids, they will glue together. Children in the UK ask me: 'How cold is that?' I tell them that when you spit, it hits the ground frozen solid – it's like spitting ice cubes.

I think I have clarified one thing here – if you've got a product worth shouting about, put it in the Arctic as there is no better testing ground. It's make or break out here.

Years ago I no longer wanted to mess around with lens solutions, and I started wearing CIBA Vision Focus Dailies. My entire batch of these disposable contact lenses freezes solid on my sled. Gear items are closely scrutinised, I can't afford to compromise on anything, as one month's sled payload weighs close to half a tonne, including dog food, fuel, Vertes Standard



Rolfe throws boiling water into the air, at -40°C it explodes instantly into ice crystals

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Rolfe and his dogs, in February

Arctic soul

Explorer **Gary Rolfe** has travelled 11,000 miles through the Canadian Arctic with dogs. Alone, it's always dangerous. And cold. He's worn contact lenses in temperatures of -51°C . Here he tells us why

VHF radio and a Panasonic Toughbook laptop. I also carry comprehensive veterinary and medical kits. I keep a week's supply of lenses in a near-body zipped pocket, as body heat keeps them thawed.

At -40°C , life is violent and debilitating. And sometimes it's worse than that. The Arctic can be a savage killer, cold can strip critical elements needed to survive. It's a brutal existence – I've lost body parts to the cold. It's not good.

True white-outs create chronic visibility problems. With no shadows to provide contrast, and no colours or tones, judging safe footings always has me feeling sick. Wearing ski goggles is crucial. Snow blindness hurts like glass shards in the eyeballs. The contact lens/ski goggle combination gives me the best vision to find routes over chaotic sea ice rubble.

I watch for polar bears constantly; they are at the top of the food chain, fear nothing and have a tendency to eat people. I look out for their kills and distinguish male footprints from those of the protective sows with cubs. If I see a springtime cub, I make a wide detour, as coming between a sow and her cub always gets mum mad. I also watch carefully for stalking bears attacking from downwind. In poor light, the bears appear yellow, in bright light they're perfectly camouflaged. I've been charged by bears before, it tends to spoil my day. I really need eyes in the back of my head.

Firearms aren't the only bear deterrent. Aimed into the eyes, nose and mouth, bear pepper sprays will temporarily asphyxiate a charging bear. One summer, while out by myself, I had one go off in my face at camp – the nozzle was cracked. Temporarily blinded, I fell pole-axed to my knees. Making my way to a stream beside the camp, I flushed out my stinging eyes with icy cold water. The tear flow was prolific. This was an occasion I was grateful for disposable lenses.

There are times when life becomes very dicey. Last spring, several miles out at sea, winds were so violent the ice was black with strewn tundra. Wind-borne pebbles pummelled us. The thought of being woken by ice breaking up under my camp and scrambling blindly out of water had me wide awake with fear. For three nights and days I didn't sleep.

I'm not in the UK very often. This summer I wanted to take my lenses one step further and investigated a trial period wearing CIBA Vision Night & Day continuous wear contact lenses. I made an appointment at Specsavers in Tooting, London. A month trial was long enough to confirm my eyes were compatible with the lenses. What's next? I'm looking for eyes to be surgically implanted in the back of my head.

◆ For more information about Gary Rolfe see www.garyrolfe.com