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It's the North Pole next for Hines and his sled

TOUGHEN YOUR BODY

"If you prepare well for the cold there is less chance of falls and injuries. For a cold race like the Yukon Arctic Ultra - which is mostly at night as it's so far north, with 17 hours of darkness a day - I train at night, too. Ideally I'm tired, the conditions are bad and it's dark and cold. That means my body gets used to the precise nature of the challenge ahead. In January I was running on hard roads, because it helps to toughen up the feet and joints for the demands of travelling over hard ice."

KEEP YOUR CORE WARM

"With every degree that your core temperature falls, your muscular efficiency and strength decline considerably. Studies have examined how muscles work in colder temperatures, and both the main ones that generate power and others that stabilise joints become far less efficient. You should try to keep your core temperature stable, but you'll also need to manage your timing expectations: don't expect too much."

LISTEN TO YOUR MUSCLES

"Research has shown that people who perform best and do race after race without injury are very sensitive to their aches and pains. They will limit what they do at the very onset of pain. If they hurt during a race they will ease off, not ignore it. If I ache during a run I give it time, but if it doesn't relent I slow down or do some dynamic stretching moves and mobility exercises to help fix it."

STAY HYDRATED

"Hydration is vital in the cold, because the body doesn't respond the same as in warmer climes. You'll be less aware of your thirst, so drink regularly even if you're not thirsty. Normally you'd get a taste for salty foods to correct the balance between fluid and sodium, but the body doesn't detect that in the cold - so think about sodium, too. I try to get all my sodium from food, but might have an electrolyte powder if I think it necessary."

GET ORGANISED

"The cold affects memory and cognitive tasks, so it's useful to pack things into pockets and memorise their location. In my sled I always pack food and survival gear at the front, sleeping equipment in the centre, spare clothes and overshoes at the back. Dry bags were labelled and colour-coded so I never had to think where things were - I knew instinctively. I created habits for eating and putting up the sleeping kit so that it all felt automatic."

TRAIN YOUR EXTREMITIES

"Your body can withstand a drop in core temperature much better than an increase - your normal core temperature is 37°, but your survival range can go up to 42° or down to 27°. But the problem is that if your hands are too cold to open your kit bag, you can lose the ability to look after yourself. People lose finger dexterity, so it's useful to practise by dipping your hands in ice water then trying to open food. Training in the UK, I run at night without gloves so that my fingers are used to working normally, even when cold."

PLAN YOUR PROCEDURES

"In cold weather the body reduces bloodflow to the extremities to keep blood closer to your core, and that leaves you at risk of frostbite. So you have to plan. For example, a hand has to be exposed when eating (although you can still wear a light inner glove), so I hold my food in a mittened hand and use the exposed one to put it in my mouth. Between bites, I'll tuck the exposed hand in my jacket, under my armpit. Planning like that matters."

LAUGH IT OFF

"Indigenous populations who hunted polar bears said that if a trap failed to catch their prey they would laugh it off, even though it was serious for them. It shows that humour is very important in extreme environments: otherwise you can beat yourself up and feel like everything is your fault. It's important to have a perspective that promotes overall progress and protects your health and spirits."

EAT FOR ENERGY

"During cold races I don't cook anything - it takes too much time and uses up water and fuel. I always eat food that is cold and very high in energy, such as fatty dried meats like biltong and droewors. Another favourite is home-made shortbread, which is high in fat and protein to help recovery. I also like concentrated fruit strips and chocolate, especially Rolos. I like them because they don't stick together in the cold!"

COLD

Whether you're targeting an epic cold-weather race or you're just keen to boost your winter training in bitter Britain, here is Mark's advice