

COUGHS AND SNEEZES



The last thing you need when training hard is a cold or infection. How can you spot it coming – and if it takes a grip, what can you do to make sure you recover quickly? The GB Rowing Team physiologists offer expert advice

BY SARAH HARDMAN

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Sarah Hardman is Southern Lead Physiologist at the English Institute of Sport (EIS). After qualifying with her MSc in Exercise Physiology, Sarah spent seven years at the Welsh Institute of Sport working with Olympic and Paralympic Sports. She provided physiological support at the Commonwealth Games 2002, 2006 and to GB Badminton for Athens 2004. After a stint working with athletics, she moved to work with British Rowing at the EIS in January 2007 and is now the EIS Physiology Southern Lead. As well as service delivery, Sarah manages the staff and resources in the physiology facility at Bisham Abbey, including the environmental chamber. She has a specialist interest in sleep physiology and elite performance.

Baseline levels for these biological markers are useful indicators of your physical well-being and response to training. You should aim to record these objective measures along with subjective markers, such as sleep quality (%), on a daily basis in your training diary and inform

A heavy endurance training programme leads to a compromised immune system – the body's defence against infections – which can be a challenge for rowers throughout the season. Yet in the winter months, bouts of illness can proliferate.

Typical illnesses in endurance athletes, particularly rowers pursuing high volume training programmes, are viruses such as upper respiratory tract infections (URTI) including sore throats and colds. Other ailments can include vomiting and diarrhoea, which are equally contagious. All require good management to ensure an optimal return to training.

Sports medics have described the common cold as a viral infection that can be caused by any one of up to 250 strains of virus, the most common group of which is the rhinovirus. Here 'rhino' refers to the nose.

Rhinoviruses are estimated to be responsible for anywhere between a third and a half of all common colds. Typically the rhinovirus will invade the mucus of the nose, where it rapidly reproduces. It is this reproduction of the virus, and your body's immune reaction to it, that causes the feelings commonly associated with a cold; including fatigue, a sore throat, a runny or stuffy nose, sneezing and mildly swollen glands. For most people the acute symptoms of a cold will last somewhere between four and seven days, although complications such as sinusitis and bronchitis can prolong the illness and make it more unpleasant.

Illnesses are typically spread by airborne viruses (from coughs and sneezes) and are transmitted through eyes, mouth and nose. How can you avoid infection? Well, good personal hygiene, nutritional and recovery practices as outlined in the following table (Whyte et al, 2005) can certainly help.

Monitoring

How can you spot an impending illness? The best way to monitor your normal physiological functioning and response to training is by checking your waking heart-rate and body mass in the morning.

An elevation in waking heart-rate can be a good indicator of possible illness. It can be useful as an early warning sign, through to being a glaring red light indicating that you should stop training. The table opposite provides general advice for training based on increased heart-rates.

Also, a loss in body mass can indicate that your body is not coping well with training – either because of insufficient fuel intake or your body could be working in 'overdrive' to fight the infection.

Practices to avoid illness

Hygiene	Nutrition	Recovery
Avoid contact with people who have infectious illnesses.	A well-balanced diet with adequate energy, carbohydrate (CHO), protein, fat and micronutrient (vitamins) intake is important for the maintenance of the immune system.	Good sleep strategy (see August 2012 issue) – i.e. Regular and adequate sleep
Good hygiene practices – e.g. wash hands regularly.	Maintain good hydration and a well balanced diet.	Avoid immuno-suppression: ensure adequate rest between training sessions; avoid high intensity / long duration sessions.
Avoid hand to eye, mouth and nose contact.	Supplements can be effective in restoring normal immune function – e.g. 1000mg of vitamin C daily and 15mg of zinc four times daily at the onset of symptoms.	
Minimise contact with large crowds, including shared showers etc.	Take advice on additional supplements: CHO supplementation during exercise (i.e. CHO drinks) to maintain blood glucose levels and to prevent immuno-suppression. This will also help to maintain saliva flow rate. Saliva contains several proteins that protect against infection. Continue CHO supplementation after training.	Allow sufficient recovery between training sessions.
Do not share drinks bottles.		Reduce life / psychological stress.
Quarantine yourself if symptomatic. You are most infectious at the start of a cold so it may be prudent to hide yourself away at this time.		



your coach if there are any changes.

So, what should you do if you think you might be ill? Compare your baseline and waking heart-rates, and consult the following table...

Waking HR training advice

Normal (c. 40bpm)	Train as prescribed.
Elevated 4-6bpm	Modify training to a light UT2 or even UT3 (low level aerobic training session with HR 40-50% max HR).
Elevated 6-8bpm	Some light stretching / core training and rest.
Elevated 10+bpm	Rest.

Training

Training whilst ill is not a sensible approach. However, there are instances when you can alter training according to the illness severity and stage of recovery. This should be completed in conjunction with your morning monitoring data and coach / GP discussions (see 'Waking HR training advice' table).

Returning to training can be a tricky business as you may be inclined to return to the programme at the point you left it before your

Returning to training after illness



illness. However, it's important to be guarded in your return and follow the basic rule of delivering a consistent UT2 session (i.e. 2-3 sessions at the same split and RPE / HR) before moving onto intensity sessions. Lightweight training sessions will also suffice, but you should aim to avoid maximal strength sessions initially.

Above is a guide as to how you should progress into light training. These sessions can be completed over two to five days depending on how you are feeling.

Check the content of your medicines!

Athletes subject to in and out of competition testing should also be aware that certain banned substances may appear in cough remedies and mixtures. Before taking any medication you should consult the Global Drug Reference website at www.globaldro.com to ensure medicine

ingredients aren't prohibited. This will also change for medication bought outside of the UK. In all cases you should double-check medications when training abroad or in the UK.

Get well soon...

So, in summary, avoiding illness is helped by using appropriate recovery, personal hygiene and good nutrition practices. If you are unlucky enough to succumb to illness then a good rest and a sensible return to training is advised.

Read on...

Need more details? Then why not read *Avoiding Winter Illness* by G Whyte, R Budgett, R Jacques and P Davies.