players on five occasions, twice at sea level, in order to create a baseline, and then again at 1000 m for acclimatisation and twice at 1600 m. There was no effect of time, repeat assessment, or altitude on choice reaction time. The results of this study therefore suggest that moderate altitude has no significant determinable effect on choice reaction time in highly trained international competitive athletes. It is possible that altitude did result in an increase in choice reaction time, but that this was cancelled out by the effects of practice/repeat assessment. We think this an unlikely explanation, as there was no significant improvement between assessments 1 and 2 (the baseline), where the greatest practice effects would have been expected. As stated in the Introduction, clear deleterious effects on psychomotor speed can be observed above 4000 m. However, it is still possible that subtle effects may occur at lower altitudes, but more sensitive measures would be needed to determine them.

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The shirt sign

I wish to describe "The shirt sign"—a new clinical sign in steroid abuse. This is a clinical observation made during examination of the respiratory system of known anabolic steroid users. The sign refers to the mode of removal of the shirt and may be of two varieties.

The T-shirt. Instead of reaching behind the neck and pulling the T-shirt over the head in a haphazard and often undignified fashion, the steroid user crosses his arms in front of his body to grip the lower hem of his shirt and removes it in a graceful, flowing motion accompanied by progressive isometric contraction of the exposed upper body musculature.

The buttoned shirt. Patients usually loosen the top two buttons and then rapidly pull the shirt over the head. The steroid user slowly unbuttons from the top downwards while

increasingly contracting latissimus dorsi and pectoralis major and, occasionally, deltoid muscles. This causes some difficulty in the undoing of the lower buttons as they disappear from view below the hypertrophied muscles. With the aforementioned muscles contracted, upper limb movement also becomes more restricted.

Auscultation of the respiratory system can be difficult as patients find it impossible to inhale fully and exhale smoothly while maintaining an impressive pose.

These observations are based on only two patients and I require validation in large scale case-control and prospective studies.

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