Any Questions?

We publish below a selection of questions and answers of general interest

Inheritance of Defective Red-green Colour Vision

If the father has defective red-green colour vision what are the chances of his children inheriting it?

There is no increased risk of the son being colour-blind because red-green colour blindness is X-linked and the son does not inherit his father's sex chromosome. On the other hand, a colour-blind male must transmit the gene to his daughter and so her risk of being colour-blind will be increased from about 0·5% to either 6·5 or 2·5%—these are approximate figures—depending on whether her father has colour-blindness of the deutan or protan series.

Inheritance of "Double Jointedness"

How common is double jointedness, and have any studies on its inheritance been carried out?

Generalized joint laxity is a feature of several genetic conditions such as Ehlers-Danlos and Larson syndromes and osteogenesis imperfecta. By itself the milder cases are probably polygenically inherited. More severe generalized joint laxity has been described both in dominant and recessive forms.

[1] McKusick, V. A., *Heritable Disorders of Connective Tissue*, 4th edn., St. Louis, C. V. Mosby, 1972.

Valgus Deformity and Shoe Wear

Why do patients with valgus deformity of the feet wear down the heels of their shoes on the outer side?

This question is indeed difficult to answer since it would seem obvious that the child should wear down the inside of the heel. In fact the outside of the heel is worn down as the questioner suggests. One of the great problems of the valgus-deformed foot is the bulging and rapid wearing out of the shoe upper on the outer side above the heel. This wear can take place within a remarkably short period of time and virtually destroy the shoe. Watching these children walk shows that there is almost a rotary or corkscrew motion of the heel in the shoe. In one sense the heel of the foot overhangs the heel of the shoe on the outer side and it lies in this stretched upper. This causes the axis of weight-bearing to be displaced laterally, thus causing the shoe wear described by the questioner. This is perhaps a complex explanation but the wearing of the heel is certainly paradoxical.

Generalized Alopecia Areata

An apparently healthy man of 30 has lost every hair on his body. What might be the cause of this?

The usual cause of complete hair loss in an otherwise healthy person is a generalized form of alopecia areata. In the more common localized form the hair usually regrows entirely though the new hair may be of a different colour and texture and there may be further episodes of hair loss. In some people, however, the condition progresses with total loss of body hair and regrowth of hair is unusual. The condition may also occur quite rapidly and diffusely without discrete patches of hair loss and this is probably the situation in the patient described. Histologically, the follicles are present—though in poor condition—and so theoretically the condition can be reversed. Local corticosteroid injections and systemic corticosteroids do have some effect, but in most cases the patient ends up with a wig.

Safety of Riding Hats

Should safety harness be worn over a riding hat?

It is more important that a proper chin strap should be part of a riding hat and that it should be securely fastened than that it should be part of any particular type of harness. The hat should conform to British Standard 3686 of 1963. Riding hats are too often worn with straps unfastened, without straps at all, or with a token piece of thin, decaying elastic. Thus they come off too easily and their protective function is vitiated. I dissent, however, from that part of the British Standards Institution recommendation which states "it shall be fitted with a stiff peak, which shall remain rigid in use." Such a rigid peak may act as a lever to dislodge the hat and has been found unnecessary and undesirable in other types of protective helmets. Maximum protection is the aim and there should be no concession to decorative or conventional criteria.

Notes and Comments

Analgesia in Road Accidents.—Colonel R. OLLERENSHAW (Surgeon-in-Chief, The St. John Ambulance Brigade) writes: With reference to the answer to this question ("Any Questions?" 9 February, p. 239), your expert's reply is very sound and I would entirely agree with him. All our vehicle crews have been warned to remember that Entonox is 50% oxygen, and that very great care is therefore required if there is the slightest risk of fire. I feel that this aspect, even though "non-clinical," should be made clear.

OUR EXPERT replies: Colonel Ollerenshaw is correct in stressing that users should know about the 50% oxygen content of Entonox if there is a fire risk. Though the point was not covered in the answer it was included in the published papers given as references. The (50%) nitrous oxide content is also a fire risk. Users should also know about the use of Entonox for the relief of pain following spinal injury. Immediately after an accident pain has the virtue of acting as a valuable feedback mechanism guarding against incautious movement. In training emergency service personnel this point should be stressed and coupled with the suggestion that, wherever possible, a patient should first be splinted, then receive Entonox, and finally be moved to the ambulance stretcher. Such a routine should avoid any worsening of injury during handling.