socket should be parallel to the margin of the bony acetabulum. In contrast, if the acetabulum is put in neutral the position cannot be checked and the surgeon is reliant upon his impression of the pelvic alignment during the operation. The asymmetry of a LPW socket is equivalent to between 5° and 10° of anteverision. This is less than the necessary 20°, and a LPW socket should therefore probably be antverted between 10° and 15°. This is difficult to achieve as it is neither parallel to the bony margin nor is it neutral.

I therefore conclude that it is preferable to use a standard Charnley socket antverted about 20° rather than a LPW socket in neutral or a small amount of anteverision.

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FOOTPRINTS AND ARCHES

Sir,

We read with interest the paper in your July 1992 issue by Rao and Joseph entitled 'The influence of footwear on the prevalence of flat foot' (1992;74-B:525-7), and would like to raise the following points which we believe may have a significant bearing on the interpretation of their findings.

They discuss the height of the medial longitudinal arch and flat foot as if they are essentially the same thing and categorise their subjects on the basis of the width of the instep using an arbitrary measurement. In their recent paper, Hawes et al (1992) state that "the use of footprint parameters is not warranted as a representative measure of the height of the medial longitudinal arch." They go on to say that footprint measurements represent no more than indices and angles of the plantar surface of the foot itself.

We feel that diagnosing flat foot on the basis of instep width alone is not valid and therefore the conclusions reached by Rao and Joseph may not be justified.

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Reply from one of the authors:

Sir,

I thank Mr Phillipson and Professor Klenerman for their comments regarding our paper and for drawing our attention to the recent paper by Hawes et al (1992).

Their main criticism is that we have discussed "the height of the medial longitudinal arch and flat foot as if they are essentially the same thing". Yes, this is what we have assumed and implied. This assumption is supported by the definition of 'flat foot' in no less than five monographs on foot disorders, including one edited by Professor Klenerman (Du Vries 1973; Helfet and Lee 1980; Tachdjian 1985; Griffin and Rand 1988; Fixsen 1991).

The diagnosis and grading of flat foot on the area of sole contact on weight-bearing have been widely accepted (Rose, Welton and Marshall 1985; Tachdjian 1985; Fixen 1991). As the medial longitudinal arch is lowered, more of the instep comes in contact with the ground and our choice of this measurement was by no means arbitrary. Furthermore, the advantages of using a simple yet sensitive screening test for epidemiological surveys such as ours cannot be over emphasised.

Hawes et al (1992) have shown that various footprint indices do not correlate with the actual height of the skeletal longitudinal arch. They cite a study by Cureton, Wickens and Haskell (1935) who measured the height of the arch from footprints made in moist sand and confirmed that the linear breadth of the arch (the criterion used by us) showed a high correlation with the arch height. The linear breadth of the instep was not evaluated by Hawes et al, but even if it did fail to correlate with the height of the bony arch, it has been shown to correlate with the arch as assessed by the external contour.

In clinical practice the height of the bony longitudinal arch is seldom used as the criterion for referring a child to an orthopaedic surgeon. It is the external contour of the arch which attracts the attention of the parent and the clinician. The paper by Hawes et al implies that a distinction needs to be drawn between the clinically discernible arch and the skeletal arch. Our aim was to study the external contour of the arch of the foot, as reflected in the footprints. Our study shows conclusively that this varied significantly between children who wore shoes and those who did not.

We shall certainly take cognisance of the points raised in our continuing study of foot shape, but we maintain that the conclusions drawn from our present study are valid.

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HIP FRACTURES AND QALYS

Sir,

With regard to the paper in your March 1992 issue by Parker et al on 'Cost-benefit analysis of hip fracture treatment' (1992;74-B:261-4), it is heartening for a health economist such as myself to see that orthopaedic surgeons are in the vanguard of using the concept of QALYS (Quality-Adjusted Life-Years). Finite health resources are a fact of life (Fordham 1992); orthopaedic surgeons need to justify their share of the cake.

QALYS are still a fairly crude tool (May, Mahendran and Habib 1991) and two problems need resolving: the interrelated issues of valuation and measurement. QALYS always require...