



## The development of a screening aid for congenital dislocation of the hip

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THE DEVELOPMENT OF A SCREENING AID FOR  
CONGENITAL DISLOCATION OF THE HIP

SHAW, S.N., KERNOHAN, W. G., BOGUES, B.A.  
MOLLAN, R. A. B.

DEPARTMENT OF ORTHOPAEDIC SURGERY  
THE QUEEN'S UNIVERSITY OF BELFAST  
MUSGRAVE PARK HOSPITAL  
STOCKMAN'S LANE  
BELFAST BT9 7JB

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Congenital Dislocation of the Hip, or C.D.H., is a condition that a child can be born with, or develop shortly after birth. If detected early, treatment is simple, painless and almost totally effective. However, a late diagnosis made when the child starts to walk necessitates several operations with no guarantee of success.

Using two clinical tests, Barlow's and Ortolani's, the operator can detect at birth hips which are likely to dislocate. The hip produces a palpable vibration or 'clunk' as it moves in and out of joint. The experienced operator can detect this but, because of its subjectivity, it is often missed by less experienced medical staff.

This paper describes the development of both hardware and software for a computer based vibration logging system, the C.D.H. screener. The screener detects, displays and analyses joint vibration signals and will allow discrimination of the C.D.H. 'clunk' by a untrained examiner.