TECHNOLOGY OFFER

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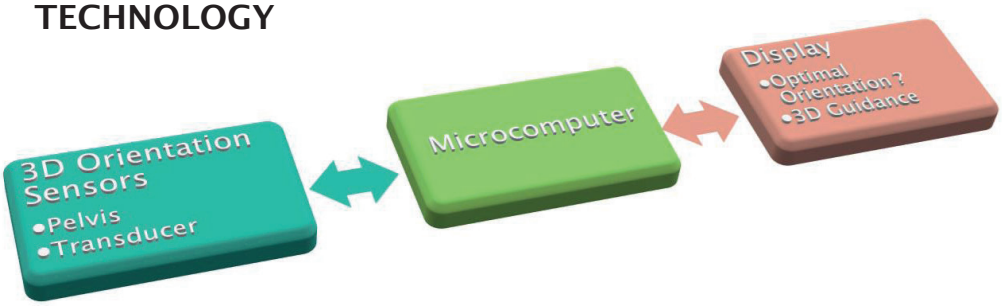
Electronic Transducer Guiding Device for the Sonographic Screening for Developmental Dysplasia of the Hip

BACKGROUND

Sonographic screening programs for developmental dysplasia of the hip are implemented in many western countries [1]. However examiner dependent factors have been repeatedly discussed to influence results leading to over- or undertreatment.

TECHNOLOGY



The device uses two orientation sensors to measure the relative orientation of the transducer to the hip joint. The first sensor is attached to the transducer and the second sensor to the skin above the os sacrum. A computer system is used to calculate and display to relative orientation for an optimal transducer placement. Thus tilting and rotational errors are eliminated, which are the main course for examiner dependent errors [2].

ADVANTAGES

- Simple and low-cost device
- Easy to apply
- Improvement in terms of reliability and reproducibility of measurement results

POTENTIAL FIELDS OF APPLICATION

- Sonographic Screening Programs for Developmental Hip Dysplasia

1. Graf R (1983) New possibilities for the diagnosis of congenital hip joint dislocation by ultrasonography. J Pediatr Orthop 3:354–359
2. Kolb A, Benca E, Willegger M, et al (2017) Measurement considerations on examiner-dependent factors in the ultrasound assessment of developmental dysplasia of the hip. Int Orthop 41: . doi: 10.1007/s00264-017-3455-9

REFERENCE:
782.18

COOPERATION OPTIONS:
Licence agreement

KEYWORDS:
- Sonographic Screening
- Electronic Transducer Guiding System

DEVELOPMENT STATUS:
- Prototype
- Proof of concept

IPR:
Patent: application filed

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