



<b>Title</b>	<b>Bone Densitometry in Children and Adolescents</b>
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<b>Reference</b>	Technology Review Report, 017/07, 2007. <a href="http://medicaldev.moh.gov.my/uploads/densitometry.pdf">http://medicaldev.moh.gov.my/uploads/densitometry.pdf</a>

## **Aim**

To determine the safety, effectiveness, and cost effectiveness of densitometers in measuring bone density in children and adolescents.

## **Conclusions and results**

Various devices can be used to measure bone density in children and adolescents. Currently dual-energy x-ray absorptiometry (DXA) and peripheral DXA (pDXA) remain the most widely used and are considered to be the gold standard, although some caution should be taken in interpreting the results.

## **Recommendations**

It is recommended that widely acceptable, accurate, and feasible bone densitometry measurement such as pDXA be used in epidemiological research.

## **Methods**

The literature search included the following electronic databases: PubMed, Ovid, ProQuest, Ebscohost, EBM Reviews for Controlled Trials, Cochrane Database of Systematic Reviews, Cochrane Clinical Trial Registry, Science Direct, Springer Link, and general databases such as Google and Yahoo. Health technology assessment databases were also searched for relevant articles. This study included all primary papers, systematic reviews, or meta analyses pertaining to safety, effectiveness, and cost effectiveness of densitometers in children and adolescents.

All relevant literature was critically appraised and the evidence level graded according to the Oxford Centre for Evidence-based Medicine Levels of Evidence (May 2001).

## **Further research/reviews required**

Studies need to compare the cost effectiveness of densitometry devices.