



# **BONE DENSITY & OSTEOPOROSIS: An Update for Manitoba Physicians**

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## **Bone Density Testing in Depo-Provera Users**

### *What is the concern?*

Contraception with depot medroxyprogesterone acetate (DMPA, Depo-Provera) has been publicized as a possible risk factor for bone density loss and possibly osteoporosis in later life. This led to a “black box” warning and recommendations to assess bone mineral density loss with BMD testing in individuals who have used this agent for more than 2 years.

### *What is the controversy?*

There is no convincing evidence that short-term changes in bone mineral density in DMPA users result in higher fracture rates in the short term or in later life. Reductions in bone density show recovery after discontinuation (whether this is partial or complete is currently unclear). A WHO statement on “Hormonal Contraception and Bone Health” published in July 2005 (see References) concluded that:

“...since the effect on BMD is largely reversible, any lifetime increase in fracture risk is likely to be small.... DMPA is a highly effective and widely available method of contraception, which plays an important role in the contraceptive method mix”.

### *Current recommendations*

Expert advisory groups and the HSC Mature Women’s Program (Dr. R. Boroditsky, Director) have recently concluded that the current evidence does not support bone mineral density testing when long term DMPA use is the sole indication (see References). The Manitoba Bone Density Program Committee has reviewed these recommendations and evidence, and agrees with this position. Bone density testing may actually do harm since it could lead to inappropriate pharmacotherapy or denial/withdrawal of appropriate contraception.

## *Key messages*

1. The current evidence on DMPA use and skeletal effects indicates that concerns regarding BMD should not restrict initiation or continuation of DMPA use in adults or teens.
2. Because the clinical implications of dual energy x-ray absorptiometry (DXA) testing in premenopausal women are not well established, DXA assessment is not recommended for DMPA users.
3. Because the safety of bisphosphonates in reproductive-age women is not established, such medications should not be prescribed to young women who are current or former DMPA users.
4. A healthy diet, adequate calcium and vitamin D intake as well as good weight bearing exercise activity should be encouraged, but this recommendation applies to all women regardless of contraceptive use.

Adapted with permission from the HSC Mature Women's Program.

## **References**

WHO, "Hormonal Contraception and Bone Health", [http://www.who.int/reproductive-health/family\\_planning/bone\\_health.htm](http://www.who.int/reproductive-health/family_planning/bone_health.htm), July 2005.

Kaunitz AM. Contraception 2005; 72:165-167. Depo-Provera's black box: time to reconsider? Contraception. 2005 Sep;72(3):165-7.

British Columbia Bone Density Working Group, [http://www.hlth.gov.bc.ca/msp/protoguides/gps/bone\\_density.pdf](http://www.hlth.gov.bc.ca/msp/protoguides/gps/bone_density.pdf), Fall 2005.