



## CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC.

### BOARD OF DIRECTORS

#### POSITION

#### **Relating to: Use of Dual-Energy X-ray Absorptiometry for Body Fat Measurement**

Recent articles relating to the measurement of body fat percentage (BFP) in humans list Dual-Energy X-ray Absorptiometry (DXA) as an accurate representation of BFP. While DXA does deliver a relatively low dose of radiation, (thought to be between 1 micro Sievert and 10 micro Sievert depending on the make, model and scan mode used), as with any imaging technique which utilizes ionizing radiation, each examination must be clinically justified. As with any other x-ray based imaging method, radiation dose from DXA is to be kept as low as reasonably achievable.

*Dual-energy X-ray absorptiometry is a clinically proven method of measuring bone mineral density (BMD) and the primary goal of DXA is to measure BMD accurately and reproducibly. Indications for DXA include, but are not limited to individuals with established or clinically suspected low BMD, women age 65 years and older, men age 70 years and older (asymptomatic screening), individuals at increased risk for osteoporosis or osteopenia, and children or adolescents with medical conditions associated with abnormal BMD. DXA may be indicated as a tool to measure regional and whole body fat and lean mass for patients with malabsorption, cancer, or eating disorders. (Excerpt from American College of Radiology-SPR-SSR Practice Parameter for the Performance of Dual-Energy X-ray Absorptiometry).*

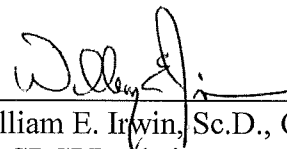
As with any x-ray examination, DXA is to be prescribed by a licensed clinician and administered by a qualified operator. In the majority of States, any and all equipment which produces ionizing radiation is to be licensed or registered with the State Health Organization or similar entity. Additionally, most State Organizations require review and prior authorization before x-ray imaging is used in a 'screening' protocol.

There are numerous alternatives available in the measurement of BFP which do not require exposing the individual to radiation. These include but are certainly not limited to: skin calipers, bioelectrical impedance, hydrostatic weighing, air-displacement plethysmography, as well as various height and circumference methods.

The use of DXA for the purpose of BFP has implications which could include a wide scope including use in health clubs, spas and other non-clinical settings. With the potential for increased use of DXA comes the need to comply with Federal and State Regulations governing the use of ionizing radiation as well as to both justify such usage and to ensure that any individual's exposure to radiation is kept as low as reasonably achievable.

**It is the position of the Board of Directors of the Conference of Radiation Control Program Directors, Inc. (CRCPD) that Dual-Energy X-ray Absorptiometry is to be used as a diagnostic tool and only under the direction of a licensed practitioner. Further, any use of DXA in the measurement of Body Fat Percentage in other than a clinical setting should be subject to approval and oversight by the respective State Health Organization.**

Adopted by the CRCPD Board of Directors on November 17, 2015.



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William E. Irwin, Sc.D., CHP  
CRCPD Chairperson