

**DEPARTMENT OF KINESIOLOGY  
ACKNOWLEDGMENT OF RISK FOR DXA EXAM**

**Introduction**

This form provides information that may affect your decision to undergo a DXA scan.

**Purpose of a DXA scan**

The purpose of a DXA scan is to allow measurement of body composition, which includes the density of the bones, muscles, and fat in your body.

**Background on DXA**

DXA (or DEXA) stands for dual-energy X-ray absorptiometry. It is a method by which two intensities of X-rays are scanned across the body. The resulting image is analyzed to provide estimates of body composition, including total body fat, lean tissue, and bone.

**Benefits**

The advantages of DXA over other body composition assessments are that the results are most accurate and highly reproducible. This is not intended to provide a medical or therapeutic diagnosis or treatment.

**Risks**

The DXA scanner emits a small amount of radiation. Using the standard way of describing radiation exposure, from one DXA scan, you will receive an effective dose of less than one-thousandth of one rem (i.e., **less than 1 mrem**). By comparison, the average person in the United States receives this much radiation every day from natural background sources, such as the sun, and from radioactive materials that are found naturally in the earth's air and soil. The Food and Drug Administration (Title 21 CFR Part 361) and the National Institutes of Health (NIH) Radiation Safety Committee guidelines for radiation exposure allow for research subjects to be subjected to 5000 mrem per year. If you have received high dose X-ray testing or radiation treatment in the last year that may cause you to exceed this guideline, please inform the DXA operator. The table below can be used to calculate the annual radiation exposure from common medical procedures.

**Doses from Medical Procedures (x-ray, single exposure)**

Procedure	Dose (mrem)	Procedure	Dose (mrem)
Chest	10	Mammogram (2 views)	72
Dental	1.5	CT-Full Body	1000
Hand/Foot	0.5	CT-Chest	700
Abdomen	60	CT-Head	200
Pelvis	70	Nuclear Medicine (injected radionuclides)	400

Source: U.S. Nuclear Regulatory Commission: <https://www.nrc.gov/about-nrc/radiation/around-us/doses-daily-lives.html>

I certify that my combined radiation exposure from medical devices/treatments over the last year is less than 5000 mrem.

\_\_\_\_\_ (please initial)

**Females of Childbearing Potential**

If you are pregnant, you **will NOT** be permitted to undergo a DXA scan. Please indicate your pregnancy status by placing your initials on the appropriate line below. Breastfeeding mothers can participate in a DXA scan (for reference, CT scans, administering 1000 mrem or more depending on the exact test, have been found to be safe for breastfeeding mothers – again, radiation dose from one DXA scan is less than 1 mrem).

\_\_\_\_\_ I am NOT pregnant or trying to become pregnant at this time.

\_\_\_\_\_ I am pregnant and will not undergo DXA testing.

If you are unsure of your pregnancy status, and would like to undergo a pregnancy test, a test kit will be provided to you. You must complete the pregnancy test prior to undergoing the DXA scan. Your test results will remain confidential between you and the researcher. If your test result is positive, you will not be able to undergo the DXA scan. Please indicate whether the DXA operator offered to provide you with a pregnancy test kit.

\_\_\_\_\_ I was provided with the opportunity to complete a pregnancy test.

Please indicate if you refused the offer to complete a pregnancy test.

\_\_\_\_\_ I refused the opportunity to complete a pregnancy test.

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**Questions**

The Department of Kinesiology has a special committee set up to oversee the operations of the DXA protocol and facility. If you have any questions concerning your test or the DXA facility, you can contact the Kinesiology Department Chair at 410-704-2772.

**If you are a minor, you should know that:**

You do not have to complete this test and will not be in trouble with your school or the DXA operator. Your parent/legal guardian must also sign below for you to be tested. Even if your parent/legal guardian said it is OK to be tested, it is still your choice whether to have the test. If you decide to take a pregnancy test, please note that although your parents will be informed that you have the option to take a pregnancy test, they **will NOT** be informed about whether you decide to take a pregnancy test and **will NOT** be informed about the pregnancy test results (in accordance with the State of Maryland Minor Consent Laws [Md. Code Ann, Health-Gen II 20-102(f)]). Your test results will remain confidential between you and the researcher. You can ask questions before or after the test. If you have questions after you leave the laboratory, you may contact the above number at any time.

**Signature**

Your signature below indicates that you have read the information provided above, have had all your questions answered, and have decided to undergo DXA testing.

**Printed name:**

\_\_\_\_\_

**Signature of Participant:**

\_\_\_\_\_

**Date:**

\_\_\_\_\_

**Signature of Parent or Legal Guardian (if minor):**

\_\_\_\_\_

**Date:**

\_\_\_\_\_

**Signature of Investigator:**

\_\_\_\_\_

**Date:**

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