This guideline is designed to inform the pregnant radiation worker about prenatal radiation exposure and the importance of making the decision on formally declaring her pregnancy to UCLA Health Radiation Safety, thereby taking advantage of reduced exposure limits established to protect the developing embryo/fetus. These limits can only be enforced, however, if the pregnancy has been voluntarily declared in writing. If a woman chooses to declare her pregnancy, steps will be taken to ensure that the embryo/fetus is monitored for occupational radiation exposure received during the pregnancy and to that, reduced regulatory dose limits are maintained.

### Background

Exposure of an embryo/fetus to ionizing radiation is assumed to carry a risk of causing certain adverse health effects, especially during the first three months. This is the stage of development where cells are progressing most rapidly. The occurrence and severity of health effects caused by ionizing radiation are dependent upon the type and total dose of radiation, as well as the time period over which the exposure was received (acute vs. chronic exposure). The main concern is fetal susceptibility to the harmful effects of radiation such as cancer or mental defects. While the exact amount of risk is subject to considerable controversy, experts agree that the risk is small. Although radiation injury using moderate to high levels of radiation has been induced experimentally in rodents and insects and was linked with hereditary disorders in their offspring, radiation has not been identified as a cause of such effect in humans. For example, no genetic effects have been documented in any of the Japanese atomic bomb survivors, their children, or their grandchildren or in children of parents who received radiation therapy for cancer treatment, prior to conceiving. Therefore, the risk of genetic effects attributable to radiation exposure is speculative.

### Radiation Exposure Limits for Declared Pregnant Workers

Federal and State laws have regulated the dose limit to an embryo/fetus of a declared pregnant woman to 500 mrem over the gestation period. This is 10% of the dose that a non-pregnant or non-declared pregnant radiation worker may receive in a year.

UCLA has further implemented monthly As Low As Reasonably Achievable (ALARA) limits to ensure doses are maintained to as low as practicable levels. If ALARA limits are exceeded, UCLA Radiation Safety shall investigate and work with the individual to implement appropriate corrective actions to reduce further radiation exposure.

### Declaration of Pregnancy

A Declaration of Pregnancy may be obtained through the UCLA Health Safety website ([https://www.uclahealth.org/safety/Workfiles/Declaration_of_Pregnancy.pdf](https://www.uclahealth.org/safety/Workfiles/Declaration_of_Pregnancy.pdf)), your dosimetry coordinator, or the Dosimetry Services Health Physicist. Declarations must be filled out completely and submitted to our office either in person (10916 Le Conte Ave. Los Angeles, Ca 90024) or by email ([radiationsafety@mednet.ucla.edu](mailto:radiationsafety@mednet.ucla.edu)).

Once the Declaration is received, the Dosimetry Services Health Physicist will contact the Declared Pregnant Worker for a counseling session. During this meeting, the Declared Pregnant Worker is given an opportunity to ask questions concerning the safety aspects of embryo/fetal exposure to ionizing radiation and to voice any other concerns regarding the Declared Pregnant Worker Program.
Radiation Monitoring
In most cases, the declared pregnant worker will be issued a fetal dosimetry badge, similar to the badge she may already be wearing, for use in monitoring the external radiation exposure to the embryo/fetus. Need for monitoring internal dose to the fetus/embryo will be assessed based on the pregnant worker’s possibility of having intake of radioactive material. The result of her monitoring will be reported on a monthly basis throughout the remainder of the gestation period.

Questions and Answers Concerning Prenatal Radiation Exposure

If I become pregnant, am I required to declare my pregnancy?
No, although it is highly recommended if you are exposed to sources of radiation. The choice of whether or not to declare your pregnancy is voluntary. If you choose to declare your pregnancy, you must do so in writing. A lower radiation dose limit will then apply to your embryo/fetus. If you choose not to declare your pregnancy, you and your embryo/fetus will continue to be subject to the same radiation dose limits that apply to other occupational workers.

If I declare my pregnancy in writing, what happens?
If you choose to declare your pregnancy in writing, the licensee (UCLA) must take measures to limit the dose to your embryo/fetus to 500 mrem during the entire pregnancy. UCLA Health Radiation Safety will provide instruction as applicable, on the risks of radiation exposure to the embryo/fetus of the pregnant worker. Radiation Safety may also implement additional controls and/or make recommendations regarding the employee's duties involving occupational radiation exposure based on the employee's radiation work environment, past exposure history, and potential for future exposure. In many cases you can continue in your present job with no change and still meet the reduced dose limit for the embryo/fetus.

Will my declaration be kept confidential?
UCLA Health Radiation Safety will keep all pregnant worker information confidential and only disseminate pertinent information on a need-to-know basis. However, if you exceed monthly ALARA limits, UCLA Health Radiation Safety may need to contact and work with your manager or department head on imposing restrictions to your normal job functions involving occupational radiation exposure. You will be notified if other parties will be informed of your declaration of pregnancy. You may, of course, choose to notify your manager or department head at any time so that they may work with you on addressing your occupation exposure concerns.

What if I decide that I do not want any occupational radiation exposure at all during my pregnancy?
You may ask your employer for a job that does not involve exposure to occupational radiation dose, but your employer is only obligated to ensure that the dose to your embryo/fetus does not exceed 500 mrem. Even if you are not occupationally exposed, your embryo/fetus will receive some radiation dose (on average 75 mrem) during your pregnancy from natural background radiation. The Federal government’s Nuclear Regulatory Commission (NRC) has concluded that the 500 mrem limit provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers. If this dose limit is exceeded, the total lifetime risk of cancer to the embryo/fetus may increase incrementally. However, the decision on what level of risk to accept is yours.

What if I have a miscarriage or find out that I am not pregnant?
If you have declared your pregnancy in writing, you should promptly inform UCLA Health Radiation Safety in writing that you are no longer pregnant.

How long is the lower limit in effect?
The dose to the embryo/fetus will be limited until you withdraw your declaration in writing or you inform UCLA Health Radiation Safety in writing that you are no longer pregnant. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.
If I have declared my pregnancy in writing, can I revoke my declaration of pregnancy even if I am still pregnant?
Yes, you may. The choice is entirely yours. If you revoke your declaration of pregnancy, the lower dose limit for the embryo/fetus no longer applies. Please contact UCLA Health Radiation Safety for more information.

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<td>☑ UCLA Radiation Safety Manual</td>
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