

1. INTRODUCTION

As an employer the UT is obliged to protect as much as possible the health of both mother and child during pregnancy and the period of breast-feeding. This means that the activities are to be organised in such a way that pregnant staff members and young mothers can work in a safe and healthy environment and that the work does not have an adverse influence on the pregnancy or breast-feeding.

Starting point in this context is that during the pregnancy and the period of breast-feeding women as much as possible will be able to continue to do their work, to keep their own job and to work at their own workplace. This is in line with the prevailing legislation and regulations (see annex 1).

2. POINTS OF ATTENTION WORKING CONDITIONS POLICY PREGNANT STAFF MEMBERS UNIVERSITY OF TWENTE

Per administrative unit within the UT information should be in place about the dangers at the workplace for pregnant staff members and young mothers, the measures necessary to avoid dangers and how staff members are to be informed of these dangers and measures. Starting point is the risk analysis and evaluation (RI&E) of the administrative unit.

2.1 RISK ASSESSMENT (RI&A)

Each administrator within the UT is obliged to prepare an RI&A. An RI&A contains information on how staff members can work safely and healthily during pregnancy and the period of breast-feeding.

For the technical faculties this means among other things that the additional registration obligation for substances toxic for reproduction (see UT guideline werken met kankerverwekkende en reprotoxische stoffen (working with carcinogenic and reprotoxic substances)) is to be met. Besides working with chemical substances there are also other risks involved during pregnancy and/or the period of breast-feeding. These include:

- Physically hard work

During pregnancy a staff member may not be obliged to perform physically hard work, such as lifting, pulling, pushing or carrying heavy objects, and operating foot pedals in standing position. Certainly in the last three months before delivery it is better to limit these activities as much as possible. It is to be avoided that pregnant staff members sit

or stand for hours on end (longer than 4 hours at a stretch). In the last three months of the pregnancy, stooping, squatting or kneeling more than once per hour is prohibited. Lifting heavy loads manually is to be avoided as much as possible. If lifting is necessary anyway, the load to be lifted in one go is to be less than ten kilograms. From week 20 of the pregnancy it is not allowed to lift more than five kilograms more than ten times a day. From week 30, no more than five kilograms five times a day is allowed.

- Ionising radiation

An unborn child is very sensitive to ionising radiation, especially between week 8 and 15 of the pregnancy. The regeling Stralingsbescherming UT (radiation protection regulations UT) states that exposure of the pregnant woman during her professional activities is to be as limited as reasonably possible. The working conditions are to be such that it is to be guaranteed that during the remainder of the pregnancy the equivalent dose for the fetus amounts to no more than 1 mSv. This can be met by not classifying the pregnant staff member into category A or B (see regeling Stralingsbescherming UT) (radiation protection regulations UT).

- Non-ionising radiation

Of all types of radiation falling into the category of non-ionising radiation, certain forms of radio frequency fields and extremely low frequency fields (ELF) can lead to adverse effects on an unborn child. During pregnancy serious hyperthermia (heating) of the unborn child resulting from exposure to radio frequency electromagnetic fields can lead to congenital defects. The harmful frequency range lies between 80 MHz and 1500 MHz, the exact frequency depending on the size of the unborn child and therefore changing during the pregnancy.

For the unborn child the standard for the population at large is used, which is five times lower than that for the professional population. Exposure of a pregnant staff member to the highest allowable dose may therefore be too high for the unborn child.

Performing activities during pregnancy involving exposure to high field intensity of ELF fields and to strong RF fields is therefore not permitted. For more information go to the

richtlijn werken met niet-ionising radiation ([guideline on working with non-ionising radiation](#)).

Exposure of pregnant staff members to electromagnetic radiation above the standard for people carrying a pace maker (0.5 mT) is to be avoided because of as yet unknown risks.

Radiation of for example screens and electric devices in general does not create extra problems during pregnancy. Also ultraviolet radiation, visible light and infrared radiation do not constitute extra problems for pregnant staff members.

- Vibrations

There is a greater risk of back complaints due to exposure to bodily vibrations as a result of pregnancy. In addition, exposure to bodily vibrations involves a higher risk of prematures and stillborns.

In case of an eight-hour exposure (the whole working day) a pregnant staff member may not be exposed to bodily vibrations or shocks with an acceleration of more than 0.25

m/s². In case of a shorter duration of exposure, higher accelerations are allowable. The rules in place for this boil down to the following: if the vibration intensity doubles, the duration of exposure allowed decreases by a factor 4. A pregnant staff member may therefore be exposed to a vibration intensity of 0.5 m/s² for a period of two hours a day.

If the exposure to vibrations cannot be kept under the dose of an eight-hour exposure to 0.25 m/s², these activities may therefore not be performed during pregnancy.

- Harmful noise

Exposure to noise levels above 80 dB(a) and peak sounds above 200 Pa (will become 112 Pa) are to be avoided. In particular the unborn child is sensitive to harmful noise.

- Ultrasonic vibrations and ultrasound

Direct contact with ultrasonic vibrations can have a harmful effect on the unborn child. An ultrasonic vibration is a mechanic vibration that is transmitted in solids, liquids or in the air with the speed of sound. Ultrasound is created when the ultrasonic vibration releases the mechanical energy to the air. Ultrasound cannot be heard by humans; it is sound with a short wavelength and a frequency above 20 kHz.

Direct contact of the body with a solid or liquid in which the ultrasonic vibration is transmitted, may lead to the damaging of tissue. Damaged tissue in the unborn child can lead to congenital defects.

The pregnant staff member may therefore not be obliged to come into direct contact with an ultrasonic vibration source. For ultrasonic air vibrations with frequencies above 20 kHz the temporary limit is 110 dB(A) per third octave band.

- Biological agents

Within the UT very limited use is made of biological agents. The RI&A is to include an overview of the agents for which there is a risk of exposure in the work situation and which pose a specific or increased risk during pregnancy and/or breast-feeding. For more information see the [de richtlijn gericht werken met biologische agentia en genetisch gemodificeerde organismen \(guideline on working with biological agents and genetically modified organisms\)](#).

Based on this it can be decided whether or not to give a vaccination or to perform certain activities during pregnancy and/or breastfeeding. Pregnant staff members are not vaccinated against hepatitis B. If necessary, Hepatitis B immunoglobulins can be administered after a suspect incident.

Annex 2 contains a summary of the professional risks and specific measures (non-limitative) during pregnancy and the period of breastfeeding.

2.2. PROVIDING INFORMATION

Under the Working Conditions Act all staff members are to be informed on the risks of the work and any measures taken and to be taken to ensure a safe and healthy work

environment. A distinction should be made in this context between information for (new) staff members and information for pregnant staff members. As to the risks of working with substances that are harmful for reproduction, also male staff members working with these substances are to be informed. This is not included in these regulations; reference is made to the UT regulations werken met kankerverwekkende en reprotoxische stoffen (working with carcinogenic and reprotoxic substances).

2.2.1 Informing new staff members.

The administrator sees to it that upon their introduction, (new) female staff will receive the information about the working conditions policy for pregnant staff members within the administrative unit. If substances that are toxic for reproduction are present within the administrative unit, information will be given on the substances involved, the possible dangers to the health, and which safety regulations are in place to prevent exposure (e.g. working in a fume cupboard / protective gloves, etc).

2.2.2 Providing information to pregnant staff members

After the staff member has reported to be pregnant, the administrator will ensure that information is given on the possible dangers for the pregnant staff member and the unborn child. The brochure of the RIVM can be used for this. In addition, specific attention (if applicable) is to be paid to the register of administrative unit's substances that are toxic for reproduction and any other possible risks during pregnancy and breast-feeding. The basis for this is the RI&A of the administrative unit. The activities to be performed are to be organised in such a way that this can be done in a safe and healthy manner. If there is any doubt or if the pregnant staff member has any problems with certain tasks, further arrangements are made which apply during the period of pregnancy and/or breast-feeding (adjustments/other work). The arrangements are laid down in writing (see for example in annex 3) and this form is signed by or on behalf of the administrator and the pregnant staff member.

2.3. BREAST-FEEDING AND WORK

The administrator sees to it that after maternity leave work can be combined with breast-feeding. During the first nine months after delivery a staff member may interrupt her activities for expressing milk or breast-feeding. She can do this as often as necessary, but not more than one fourth of the working hours. The administrator is to make available a suitable, lockable room for resting, feeding or expressing milk (with bed or couch). On the Campus there are several rooms available for breast pumping.

3. IMPLEMENTATION WITHIN THE UT

The administrator is ultimately responsible for providing proper working conditions for staff members with a desire to have children, pregnant staff members and breast-feeding staff members. The administrator is assisted by experts (health, safety and environment coördinator of the administrative unit, company doctor working conditions service, Personnel department adviser of the administrative unit).

The pregnant staff member is responsible for reporting her pregnancy and expected date of delivery as early as possible. She is also to indicate which activities are too heavy for her and which adjustments need to be made. If certain adjustments are not possible, this is to be motivated (see above under 2.2.2). The Personnel department adviser can advise the superior on any temporary adjustment of activities of the staff member and the possibilities for replacing her during pregnancy and/or maternity leave. The health, safety and environment coordinator can advise on the (controllability) of risks. The medical officer can assess the physical loadability of the pregnant staff member. Supervision over the adjustment of the activities (the measures to be taken) is performed by the immediate superior.

When due to the nature of her tasks a pregnant staff member is unable to perform (part of) these tasks, the Work and Care Act (WAZO) can be invoked via the medical officer at the working conditions service. As with all incidents of illness falling under the Eligibility for Permanent Invalidity Benefit (Restrictions) Act also for pregnant staff members fitting other work needs to be sought.

ANNEX 1: SUMMARY AND RELEVANT LEGISLATION

The Working Conditions Act assumes that the activities can reasonably be adjusted, allowing staff members to raise healthy children and pregnant women to continue their, possibly adjusted, activities for as long as possible. If this is not possible, the employer is to indicate why a certain adjustment of the work is not possible. Also according to the Working Conditions Act (article 3.f) in arranging and assigning the tasks the physical and mental condition of the staff member needs to be taken into account. To this end in the risk assessment and the subsequent plan of action, attention should be paid to the risk group of pregnant staff members.

Section 9 of chapter 1 of the Working Conditions Decree assumes that the regular working conditions are sufficiently adequate so that no adjustments of the work during and immediately after the pregnancy and breast-feeding period are necessary to avoid adverse consequences. When this is not reasonably possible, the adverse effects are to be prevented by temporarily adjusting the working methods and/or rest times. If this proves impossible, too, the staff member is temporarily to perform other activities or, in the utmost case, be exempted from performing her work.

Section 3.48 of the Working Conditions Decree indicates that the institute is to have or make available a suitable and lockable room where pregnant staff members can take a rest. The Working Conditions Decree (art. 4.109) also provides that pregnant staff members cannot be obliged to work with the rubella virus or toxoplasma gondii, two pathogenic micro organisms, unless they are immune to it. Under the Working Conditions Policy Rules (no. 1.42) a pregnant staff member cannot be obliged to perform activities with genotoxic, carcinogen, mutagenic or reprotoxic substances. For substances from the latter category that do not belong to the first or second, an exception is made if it can be proven that the safe exposure level is not exceeded.

In working with radioactive substances and X-ray equipment exposure of the unborn child is to be kept to a limit of 1 mSv during the whole period of pregnancy (Decree on Protection against Radiation, March 2002).

During pregnancy and during the first three months after delivery lifting weights is to be kept to a minimum. If it is necessary to lift weights, the frequency and weight is limited based on the time during and after the pregnancy (see under 2.1.1 of this guideline). Also, after week 20 the staff member may not be required to squat, kneel or stoop or operate foot pedals in upright position for longer than one hour a day (Working Conditions Policy Rule 1.42).

The Factories Act 1919 (art. 10a) provides that as far as reasonably possible, women are not allowed to work during the first 6 weeks after the pregnancy. The Working Hours Act (art. 4:5 and 4:7) provides that the pregnant staff member can be exempted from overwork and irregular working hours up to 6 months after delivery. If necessary, she is entitled to extra resting periods or shorter working hours up to one eighth of the working hours.

The mother is to be able to breast-feed her child during work time in a suitable, lockable room up to 9 months after the birth (Labour Act 1919, art. 11, 2nd paragraph; Working Hours Act 4:8).

Working Conditions Policy Rule 8 provides that the employer is to give information on the risks for pregnant staff members and staff members with a desire to have children.

ANNEX 2: SUMMARY OF PROFESSIONAL RISKS AND SPECIFIC MEASURES (NON-LIMITATIVE) DURING PREGNANCY AND BREAST-FEEDING

Eventually it is all about effectively preventing or controlling risks relating to pregnancy. For men and women measures aimed at protection of fertility are always important. If the pregnancy is a fact, specific measures during pregnancy, after delivery or during breast-feeding may be necessary. Taking measures is of a custom-made nature; the nature of the work and the specific situation determine the measures that need to be taken. To illustrate this, in the table below specific measures are stated per occupational risk during pregnancy, after delivery and during breast-feeding. The last column specifies the period during which the measure is relevant.

Occupational risk	Specific measures	Period
Hazardous substances	Prohibition to work with white lead, metallic lead and its ion compounds during pregnancy and the period of breast-feeding.	Pregnancy Breast-feeding
	Avoiding exposure to hazardous substances which may damage the health of the staff member during pregnancy and in the period of breast feeding, as well as the (unborn) child's health. These are at any rate (a) substances with a genotoxic action which can reach the unborn child or infant via the mother; and (b) substances which, via a non-genotoxic action, may harm the unborn child or infant's health through exposure of the mother.	Pregnancy Breast-feeding
Physical loading	Assessing the necessary personal protection gear on comfort and usability during pregnancy (with a view to physical loadability). This can play a role at any rate with respiratory protection and protective gear.	Pregnancy
	Avoiding heavy physical loading and fatigue of the pregnant staff member.	Pregnancy
	Avoiding that the pregnant staff member is to stoop, squat or kneel. This means that measures are to be taken to ensure that the level at which the hands do the work, is not lower than abdomen level. If this is not possible, pregnant staff members are to be released from these duties in the last three months of the pregnancy (the maximum is during the last three months: squatting, kneeling, stooping or operating foot pedals once every hour). If foot pedals are operated in standing position, it is recommended to find out whether the work can also be performed sitting.	Pregnancy
Radiation	Avoiding that the pregnant staff member or staff member is to lift objects manually up to 3 months after delivery. If this is not possible, the maximum is: 1. 10 kg in 1 operation during pregnancy and the period of up to 3 months after delivery; 2. 10 times 5 kg per day, from the 20th week of the pregnancy; 3. 5 times 5 kg per day, from the 30th week of the pregnancy. Using lifting devices is a specific measure that may be helpful in some cases. In lifting, it is to be avoided that the staff member is to exert force in another way, for example pushing and pulling. If it is impossible to lift and exert force, it will be necessary to release the (pregnant) staff member from these activities in some phases of the pregnancy and after delivery.	Pregnancy After delivery
	Providing pregnancy-specific posture and movement instructions, such as lifting techniques.	Pregnancy
Vibrations	Avoiding that the equivalent dose resulting from the work for the unborn child exceeds 1 mSv (from the moment of reporting the pregnancy until the end of the pregnancy).	Pregnancy
	Exempting the pregnant staff members from activities that lead to classification into category A.	Pregnancy
	Exempting the breast-feeding staff member from tasks involving a more than limited risk of radioactive contamination of the body.	Breast-feeding
	Excluding pregnant women and breast-feeding women from the dispensation of the dose limits laid down in the Decree on Protection against Radiation.	Pregnancy Breast-feeding
Vibrations	Exempting the pregnant staff member from tasks that may involve exposure to high field intensity of ELF fields, and powerful RF fields.	Pregnancy
	Avoiding that during the activities pregnant staff members are exposed to bodily vibrations or shocks with an acceleration of more than 0.25 m/s^2 . This limiting value is applicable to an eight-hour exposure.	Pregnancy

Sound	Exempting the pregnant staff member from tasks involving exposure to equivalent sound levels above 80dB(A) and peak sounds above 112 Pa (the action value for peak sounds as laid down in the new EC directive on noise).	Pregnancy
Ultrasonic vibrations and ultrasound	Exempting a pregnant staff member from tasks that may involve direct contact with an ultrasonic vibration source or exceeding the provisional limiting value for ultrasonic air vibrations (110 dB(A) per third octave band).	Pregnancy
Biological agents	Establishing the immunity of the pregnant staff members for Toxoplasma and the Rubella virus. In principle it is important to establish the immunity for all biological agents that may be harmful in connection with the pregnancy.	Pregnancy
	Prohibiting working with Toxoplasma and the Rubella virus during pregnancy, unless the staff member has a proven immunity for it.	Pregnancy
	Avoiding exposure to biological agents that may be harmful in connection with pregnancy.	Pregnancy
	Vaccinating staff members having a desire for children who work with or during their work have a risk of being exposed to biological agents that may be harmful for the pregnancy. Vaccination is an option, not an obligation.	Prior to the pregnancy
	Having in place – in case of contamination – a curative treatment plan whereby the therapeutic measures (such as medicines) can not have any harmful effects on the (unborn) child or the breast-feeding.	Pregnancy Breast-feeding
	Assessing the necessary personal protection gear on comfort and usability during pregnancy (with a view to physical loadability). This can play a role at any rate with respiratory protection and protective gear.	Pregnancy
Mental load	Exempting pregnant staff members from performing activities that are mentally very exerting, such as dealing with aggressive clients.	Pregnancy
	Stimulating control over the activities in order to limit the work load.	Pregnancy
	Rendering social and psychological support by – for the pregnant staff member – important officers (such as superiors and colleagues). This can be done by way of informal talks or (more frequent) work-related conversations.	Pregnancy
Working and resting times	Exempting pregnant staff members and those just having given birth from overwork and night shifts.	Pregnancy After delivery
	Allowing extra breaks, a stable and regular working and resting pattern during pregnancy and after delivery.	Pregnancy After delivery
	Allowing the (pregnant) staff member to undergo pregnancy examinations.	Pregnancy
	Allowing the breast-feeding or milk expressing staff member time off for this.	Breast-feeding
Climate	Exempting the pregnant staff member from working under uncomfortable climate conditions.	Pregnancy
Working under overpressure	Prohibiting the pregnant staff member from working under pressure, including diving activities and caisson activities.	Pregnancy

ANNEX 3: AGREEMENTS ON ACTIVITIES DURING THE PERIOD OF PREGNANCY AND BREAST-FEEDING FOR THE PERIOD UP TO 9 MONTHS AFTER DELIVERY.

Name staff member:

Subject	Bottlenecks	Agreements made
Toxic substances for reproduction		
Physically heavy work		
Ionising radiation		
Non-ionising radiation		
Vibrations		
Harmful noise, ultrasonic vibrations and ultrasound		
Biological agents		
(Possibly) breast-feeding		
Other		

For approval superior:

(signature + date):

For approval staff member:

(signature + date):