

Information Sheet

Maternity Protection – Pregnancy and Breastfeeding

During pregnancy women are more susceptible to certain physical influences (e.g. x-rays), chemical substances or microorganisms (e.g. rubella virus). Exposure to such harmful influences can have serious consequences for the development of the unborn child. Towards the end of the pregnancy, strenuous tasks (e.g. moving heavy objects) can have the same consequences.

Pregnant and breastfeeding women may only perform dangerous or strenuous work if a risk assessment has shown that there is no impact on the health of mother and child, or if such impact can be eliminated by suitable protective measures.

This information sheet is directly primarily at employees of ETH, but also applies to students and interns.

Legal Basis

- Labour Law of 13.3.1964 (Art. 6, Art. 35)
- Swiss Federal Employment Law of 24.3.2000 (art. 4 para. 2 g)
- FDEA Ordinance of 20.3.2001 on hazardous and arduous work during pregnancy and maternity (“Maternity Protection Ordinance“)
- Ordinance of 25.8.1999 on the protection of personnel from hazards due to microorganisms (“SAMV“)
- Radiation Protection Ordinance of 22.6.1994 (StSV)
- Biosafety Concept of ETH Zurich

Dangerous and strenuous tasks

Dangerous and strenuous tasks for pregnant or breastfeeding women are all work which experience has shown to have detrimental effects on the health of mother and/or child:

1. Moving heavy objects

Until the end of the sixth month of pregnancy, it is considered dangerous or strenuous for pregnant women to **regularly move heavy objects weighing over 5 kg** or to **occasionally move heavy objects weighing over 10 kg** as well as to operate mechanical tools, such as levers or cranks requiring a maximum strain in any direction that corresponds to lifting or carrying a load of more than 5 kg or 10 kg, respectively.

From the seventh month of pregnancy, pregnant women are prohibited from moving any heavy object in accordance with the paragraph above.

2. Exposure to heat, cold or dampness

It is considered dangerous or strenuous for pregnant women to perform work indoors at **room temperatures below -5° C or over 28° C** and to regularly perform tasks that involve extreme dampness. At temperatures below 15° C, warm beverages should be provided. Work at temperatures below 10° C to -5° C is permitted, as long as the employer provides appropriate clothing for the thermal situation and activity. When assessing the room temperature, it is important to take factors such as air humidity, air flow and duration of exposure into account.

3. Physical movement and posture causing premature fatigue

During pregnancy and up to 16 weeks after giving birth, **activities involving frequent adverse movements or posture**, such as excessive stretching and bending, continuous crouching or hunching as well as activities with static postures restricting free movement are considered dangerous or strenuous.

4. Working with microorganisms

In case of exposure to Group 2–4 microorganisms according to Appendix 2.1 SAMV, a risk assessment must be made to determine the health risks for mother and child in the context of the activities, the immune status of the employee and the protective measures taken. **It must be ensured that such exposure does not cause any harm to mother and child.**

In handling Group 2 microorganisms which are known to have a possible **embryo toxic** effect (e.g. rubella virus or toxoplasma), **it is prohibited to employ pregnant women and breastfeeding mothers**; excluded are cases in which it is proven that immunization offers sufficient protection for the employee. Working with other microorganisms in Group 2 is only permitted for pregnant and breastfeeding women if a risk assessment has shown that no health risk is involved for both the mother and the child.

In handling Group 3 or 4 microorganisms, it is prohibited to employ pregnant women and breastfeeding mothers; excluded are cases in which it is proven that immunization offers sufficient protection for the employee.

Handling animals presents a particular risk – depending on the animal species – for pregnant women due to infection caused by zoonoses and conventional pathogens.

5. Exposure to noise

Pregnant women may not be employed at workplaces with a **sound pressure level ≥ 85 dB(A)** (**L_{EX} 8 hours**). Stress from infra or ultrasound shall be assessed separately.

6. Work involving exposure to ionizing radiation

For occupationally exposed women, from the time the pregnancy becomes known, the equivalent dose to the surface of the abdomen must not exceed 2 mSv. The effective dose from incorporation (intake in the body) must not exceed 1 mSv.

Breastfeeding women must not execute tasks involving radioactive substances for which there is a risk of incorporation or radioactive contamination.

7. Work involving exposure to non-ionizing radiation

For occupationally exposed women, from the time the pregnancy becomes known, the exposure of non-ionizing radiation to mother and unborn child must not lead to damage. The limit values according to Annex 1 "Maternity Protection ordinance" must be respected.

8. Working in a pressurized environment

Pregnant women may not be employed for **tasks in a pressurized environment** (e.g. tasks in pressure chambers or diving).

9. Piecework and time-controlled tasks

Piecework or time-controlled tasks are not allowed if the work speed is dictated by a machine or technical equipment and cannot be influenced by the employee.

10. Working in rooms with oxygen-reduced atmosphere

Pregnant women **must not enter** rooms with oxygen-reduced atmosphere.

11. Exposure to hazardous chemicals

It must be ensured that exposure to hazardous substances does not impact the health of mother and child. Specifically, the exposure limit values according to the SUVA limit values list in Switzerland must be adhered to.

Particularly dangerous for mother and child are following substances and substances according to Tab. 1 (**list is not exhaustive**):

- Mercury and derivatives
- Antimitotics / cytostatics
- Carbon monoxide
- Ethidium bromide
- Diaminobenzidine
- Acrylamide
- Halothane
- Ethylene oxide

Tab. 1: Substances classified as carcinogenic, mutagenic, toxic to reproduction or with specific target organ toxicity with the following risk phrases or combination thereof:

R-phrases		H-statements	
R40	Limited evidence of a carcinogenic effect	H351	Suspected of causing cancer
R45	May cause cancer	H350	May cause cancer
R46	May cause heritable genetic damage	H340	May cause genetic defects
		H341	Suspected of causing genetic effects
R49	May cause cancer by inhalation	H350i	May cause cancer by inhalation
		H360	May damage fertility or the unborn child
R60	May impair fertility	H360f	May damage fertility
R61	May cause harm to the unborn child	H360d	May damage the unborn child
		H361	Suspected of damaging fertility or the unborn child
R62	Possible risk of impaired fertility	H361f	Suspected of damaging fertility
R63	Possible risk of harm to the unborn child	H361d	Suspected of damaging the unborn child
R64	May cause harm to breast-fed children	H362	May cause harm to breast-fed children
		H370	Causes damage to organs
		H371	May cause damage to organs

Exposure or potential exposure to these substances is prohibited during pregnancy and breast-feeding.

12. Vibrations / jolts, impact

Activities during which the body is subjected to external forces such as blows, vibrations and jolts are considered dangerous or strenuous during pregnancy and up to 16 weeks after giving birth.

13. Stressful work-time systems

Women who are pregnant or breastfeeding may not perform night and shift work if it involves dangerous or strenuous tasks according to the above mentioned criteria or if the shift work poses a particular risk to health. Particularly detrimental to health are backward rotating shifts (night, late, early shifts) or shifts with more than three consecutive nightshifts.

Risk assessment

To determine whether there are hazards at the workplace and what these are, a risk analysis must be conducted. The risk assessment also sets out which tasks are to be avoided and / or, if indicated, how risks can be minimized.

As the risk of damage to the child is greatest in the first trimester of pregnancy, it is in the interest of the pregnant employee to contact SSHE as soon as possible in order for the risk

assessment to be undertaken at the earliest possible time. The employee should also inform her supervisor; if requested, the risk assessment can, however, be carried out confidentially.

Tasks and Responsibilities

Employer (supervisor), from the time of being known:

- Provides support in drawing up risk assessment
- Is responsible for implementing protective measures
- Informs pregnant / breastfeeding employee and attending physician

Pregnant or breastfeeding employee:

- Informs, in her own interest, SSHE as soon as possible of her pregnancy (e-mail address: mutterschutz@ethz.ch)
- Provides support in drawing up risk assessment
- Adheres to protective measures
- Informs SSHE of any changes in work processes

Attending physician:

- Performs a screening examination of the pregnant or breastfeeding employee on basis of the risk assessment
- Issues a medical certificate concerning the ability of the employee to work at the respective workplace without reservation, only under certain conditions or not at all
- Informs the employee and the employer of the results of the screening examination

Occupational Medicine and Health Protection Section OMHP:

- Carries out a risk assessment at the workplace together with CABS
- Is the contact person for the attending physician and the employer
- Conducts a new evaluation in case of changed work processes

CABS:

- Supports OMHP in drawing up the risk assessment

ETH Zürich
Safety, Security, Health and Environment (SSHE)
Occupational Medicine and Health Protection
Section OMHP

Phone: +41 44 632 30 30
mutterschutz@ethz.ch
www.sicherheit.ethz.ch →
Version: 22.02.2022