

Trade Control
of Lower Saxony

Guideline

Maternity Protection
Laboratories

Lower Saxony

General

In order to protect expecting and nursing mothers from dangers, excessive pressures and harm to their health in the workplace, the legislator has enacted appropriate regulations.

Employer's Liability

The Act for the Protection of the Employed Mother (Mutterschutzgesetz -MuSchG- /Maternity Protection Law) generally obligates the employer, at his/her own responsibility to undertake the necessary precautions and measures which are necessary in order to avoid any danger to mother or child related to the workplace, course of work and working conditions.

Risk Investigation

Pursuant to the Ordinance for the Protection of Mothers in the Workplace (Mutterschutzarbeitsplatzverordnung -MuSchArbPVO-), the employer also has to evaluate the type, extent and duration of the risk in good time with regard to every task in which the expecting or nursing mother could be endangered by hazardous chemical materials, hazardous biological substances, adverse physical factors, adverse processes or working conditions.

Determining Protective Measures

It is the aim of the evaluation, to assess any danger to health and safety as well as any effect on the pregnancy or nursing period of female employees affected and to determine any protective measures that should be adopted. The employer shall inform the expecting or nursing mother, the other female employees employed by him and, if necessary, the works council, staff council or employees' representation about the outcome of such evaluations. If the evaluation reveals that the health and safety of the female employee is at risk, the employer shall adopt the relevant measures to restructure the working conditions.

The following information is intended to help employers and female employees to appropriately evaluate specific risks to expecting and nursing mothers working in laboratories (e.g. quality control, analysis, sample examination),

Specific hazards

to take the necessary protective measures and to consider the employment limitations and preventions necessary to protect mother and child.

Individual areas

Limitations

Basically, expecting or nursing mothers shall not be engaged in heavy physical work or work in which they are exposed to the adverse affects of substances which are hazardous to health or to the adverse effects of dust, gases or vapours, heat, cold or dampness, vibration or noise. The following shall be observed in detail:

Hazardous substances/pathogens

► It is prohibited for expecting or nursing mothers to handle hazardous substances which are very toxic, toxic, dangerous to the health or in any other way chronically harmful for humans if the limit value is exceeded. Amongst others this means, that expecting or nursing mothers may only handle such hazardous substances for which it has been ascertained by measurements that the limit value is not exceeded and where skin contact is impossible.

Observe limit values

Pursuant to TRGS 101, the limit value is exceeded if compliance with the air limit value is not ascertained.

► It is prohibited for expecting mothers to handle hazardous substances which are carcinogenic, teratogenic and mutagenic. This does not apply if the expecting mother is not exposed to the hazardous substance when handling it in accordance with the intended use.

Observe limit values

Pursuant to TRGS 101, employees are exposed to hazardous substances, if exposure exceeds the ubiquitous air pollution ("background exposure").

Pursuant to the Ordinance on hazardous substances, such substances may be recognised by the following labels:

Labelling

R 45 "May cause cancer"
R 46 "May cause hereditary diseases"
R 61 "May harm the unborn child"

Breast-feeding mothers may not be employed in jobs using the above mentioned hazardous substances if the limit value is exceeded (limit value see TRGS 101¹).

Employment limitation

Such employment limitations are also related to the examination sample (e.g. soil samples) and to the hazardous substances which may be expected in such samples or to the hazardous substances resulting from chemical reactions. It should also be taken into consideration that unintended spontaneous reactions may lead to the development of hazardous substances (e.g. development of nitrosamine). Above all, the way in which the hazardous substance enters the body (e.g. via the skin, via the mucous membrane, by inhalation) shall be considered.

Pathogens

► Expecting or nursing mothers are prohibited from handling substances, preparations or products which – from experience and due to their nature – may transmit pathogens if they are exposed to pathogens.

Pathogens may be present – even if not yet recognised – e.g. in soil samples in which a biological removal of harmful substances is conducted, in sewage samples, food samples, in examination material with a high content of organic components, in biological examination material and other microbially contaminated samples (amongst others also transmission of diseases to humans such as toxoplasmosis, salmonellae, listeria and brucella pathogens).

Expecting or nursing mothers may not be employed in jobs involving unpacking and preparatory works for execution of final examinations of human or animal examination material.

¹ TRGS: Technische Regeln für Gefahrstoffe = Technical Regulations for Hazardous Substances

Assessment

A good source of information for the assessment of workplaces with regard to risks from hazardous substances are operating instructions, safety data sheets as well as the labels on the trading units.

In the case of sampling, the expected hazardous substance situation at the place of sampling must be clarified beforehand, if necessary, together with the client. Suitable personal protective gear must be provided to female staff.

In the case of using hazardous substances for which it is proven that they may penetrate the skin, adequate skin protection (e.g. CE certified impermeable protective gloves for the relevant hazardous substance) is to be provided.

If cutting, spiky, sharp or piercing instruments/objects are handled, protective gloves are insufficient as the risk of injury and the possibility of associated infection connected remains.

Radiology

Observe limit values

Pursuant to the ordinance on protection against harmful X-rays (Röntgenverordnung -RöV-/Radiation Control Regulation) and by ionising rays (Strahlenschutzverordnung -StrlSchV-/Radiation Protection Ordinance), pregnant women are only permitted to enter control areas if they have to take action for performance or maintenance of the operational procedures intended in such control areas, if the competent person who is responsible for radiation protection or the radiation protection commissioner expressly permits it and ensures that the special dosage limit value is complied with by suitable monitoring measures and this is documented. Entry to such control areas as an assistant shall only be permitted if required for compelling reasons. Entry into control areas as animal keeper is prohibited for pregnant women.

Observe limit values

The dosage limit value from external and internal exposure to radiation for an unborn child, the dose equivalent from the time of acknowledging the pregnancy until its end may not exceed the limit value of 1 millisievert. The dose equivalent of the unborn child corresponds to the organ dose of the pregnant woman's uterus.

Obligation to instruction

As soon as a woman has informed her employer of her pregnancy, her occupational exposure to radiation is to be assessed every working week and the expecting mother shall be informed of it. In the scope of the employer's obligation to instruction, the employer shall inform women that the employer has to be informed of a pregnancy as early as possible with regard to the risks of radiation exposure of the unborn child.

Observe limit values

Pursuant to the ordinance on protection against ionising rays (Strahlenschutzverordnung -StrlSchV-/Radiation Protection Ordinance) a special limit value for the unborn child must be observed when employing expecting mothers who are dealing with radioactive substances in the control area.

The dosage limit value from external and internal exposure to radiation for an unborn child, who is exposed to radiation due to its mother's employment is 1 millisievert from the time of notification of pregnancy until the end of the pregnancy.

The occupational exposure to radiation is to be assessed every working week and the expecting mother shall be informed of it. In any case, special protective measures are necessary when dealing with open radioactive substances.

Observe limit values

In addition to that it must be ensured that the relevant female employees do not have contact with patients who have been administered radioactive substances nor may they have contact with excreted substances of such patients. In case a patient has been administered a radionuclide, a temporary control area may be created (up to a circumference of 3 metres in accordance with the applied dosage).

In the scope of the employer's obligation to instruction, the employer shall inform women that the employer has to be informed of a pregnancy as early as possible with regard to the risks of radiation exposure of the unborn child. In case of contamination of the mother it is furthermore to be pointed out that the breast-feeding baby may absorb radio-active substances during breast-feeding.

As soon as a woman has informed her employer that she is either pregnant or breast-feeding, her working conditions shall be changed in such a way as to exclude occupational exposure to radiation.

With regard to the potentially high amount of protection required it is recommended that the present practise of transferring expecting mothers into other departments (e.g. administrative department) is maintained, when dealing with open radio-active substances (e.g. in the laboratory) or with radiation work.

Non-ionising rays: In particular areas of strong magnetic or electromagnetic (stray) fields, adverse effects on the human body, especially for the expecting mother and the unborn child, cannot be excluded. Pursuant to the recommendations of the Federal Office for Radiation Protection and the Radiation Protection Commission, pregnant women should not be employed in the following areas:

- in the magnet room of magnetic resonance imaging equipment,
- in hyperthermia workplaces,
- with diathermy appliances.

[Genetic Laboratories](#)

Expecting or nursing mothers may not have any contact to experimental animals and – in particular – may not conduct any microbiological or toxicological animal experiments. Uninfected, specified pathogen-free animals (SPF animals) may be looked after.

Furthermore, expecting or nursing mothers may not be employed in processing unfixed preparations from human or animal organs.

Expecting or nursing mothers may conduct breeding of normal and tumour cells and their cultivation if such cells do not contain any viruses that are pathogenic to humans.

Lifting and carrying weights

Weight limit

Expecting and nursing mothers may not be employed in heavy physical work and particularly not in work in which weights of more than 5 kg are regularly lifted by hand, moved or carried without mechanical support or casually if the weight is higher than 10 kg. If larger weights are to be lifted by hand, moved or carried with mechanical support, it is permitted to lift them by hand, to move or carry them with mechanical support, however, the physical strain of the expecting or nursing mother may not exceed the described strain. This would have to be checked for example when the samples are taken or received.

Work demanding severe physical power, involving exhausting postures or movements or putting exceptional strain on particular body parts or organs is considered heavy physical work.

Permanent standing

Time limit

After the end of the fifth month of pregnancy, expecting mothers may not be employed in work where they have to permanently stand, if this work exceeds four hours per day.

Frequent stretching and bending down

Expecting or nursing mothers may not be employed in work in which they often have to stretch or bend down considerably or in which they permanently have to kneel or bend down.

Overtime/night work/work on Sundays and public holidays

Expecting or nursing mothers may not be employed in overtime for more than 8.5 hours daily or 90 hours in a double week and they may not work during the night between 8 p.m. and 6 a.m., or on Sundays and public holidays.

Measures to be undertaken Interruption of work

Providing seating accommodation

Employers who employ expecting or nursing mothers in work in which they permanently have to stand or walk must provide a seat with a backrest near their working area, so that the mothers can take a short rest.

Rest

Providing an opportunity to rest

Expecting and nursing mothers shall be given the opportunity to take a rest on a couch in a suitable room during the breaks as well as during working hours (independent of statutory regulated rest periods) if necessary for health reasons.

Change of work / release

Change of work

If a modification of the working conditions and/or of the working hours is not possible taking into consideration the state-of-art technology, occupational medicine and hygiene as well as other assured ergonomic findings or if it is unreasonable due to verifiable disproportional expenditure, the employer shall take the necessary measures to change the workplace. If a change of workplace is not possible or if it is unreasonable, expecting or nursing mothers may not be employed as long as required to protect their health and safety.

Even if the expecting or nursing mother agrees to proceed with the previously undertaken work, it does not release the employer from his obligation and responsibility to observe employment prohibitions and to implement the regulations of maternity protection law.

Imperative of risk minimisation

Particularly in maternity protection, the imperative of risk minimisation is applicable; expecting and nursing mothers require protection, which, in some cases, exceeds the usual scope of occupational health and safety. Risks shall be taken into

consideration, which may be caused by carelessness, conditions in the workplace and particular pressure such as time pressure, emergency, shortage of manpower etc.

Please note:

Compensatory payments

If expecting mothers have to suspend their work partly or completely due to an employment prohibition, the employer has to grant them at least the average earnings of the past 13 weeks or the past 3 months before the start of the month in which the pregnancy occurred (see section 11, para 1 MuSchG/Law on Protection of Expectant and Nursing Mothers).

Pursuant to the law for compensation of employer's expenditure for wage continuation (Aufwendungsausgleichgesetz – AAG/Expense Compensation Act) of 22.12.2005, all employers participate in the compensation procedure for employer's expenditures for maternity benefits from 01.01.2006 (U2-Verfahren/U2 procedure). The following will be reimbursed:

1. Employer's allowance to maternity benefit for the term of the protection periods before and after childbirth.
2. Remuneration for the duration of employment prohibitions pursuant to the maternity protection act.
3. Employer's contribution to the continued remuneration paid to female employees in case of employment prohibitions.

Compensatory payments shall be applied for at the competent health insurance (e.g. AOK, IKK, company health insurance funds, substitute health insurance societies). The health insurance will provide more detailed information on request.