Policy on health and safety risk assessment for new or expectant mothers

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1. Regulatory background

1.1. The Management of Health and Safety at Work Regulations 1999 implement the health and safety provisions in the ‘Pregnant Workers’ Directive (92/85/EEC). The Regulations require that an employer’s risk assessment identify risks to new or expectant mothers. Where the risks cannot be avoided by prevention and protective measures, the employer is required to either alter her working conditions or hours of work, offer her suitable alternative work or suspend her from work on full pay.

1.2. A Code of Practice provides advice to employers on how to comply fully with these requirements, including the measures to ensure that women who are breastfeeding at work are not exposed to risks and the following policy and guidelines illustrate how the Code of Practice applies within the University.

2. Risk assessment

2.1. Risk assessment involves a consideration of the health and safety risks which arise from activities taking place in the workplace.

2.2. A risk assessment should therefore identify the risks, how they arise and how they impact on those affected staff, students, and visitors. This information is needed to

make decisions on how to manage those risks so that the decisions are made in an informed, rational and structured manner, and the action taken is proportionate.

2.3. A risk assessment will usually involve identifying the hazards present in any working environment and evaluating the extent of the risks arising from these, taking into account existing precautions and their effectiveness.

3. Definitions of "new" or "expectant" mothers

3.1. Before considering the risks it is important to be aware of the relevant definitions in the regulations:

3.1.1. "new or expectant mother" means an employee who is pregnant; who has given birth within the previous six months; or who is breastfeeding; and

3.1.2. "given birth" means "delivered a living child or, after twenty-four weeks of pregnancy, a stillborn child";

4. Risk management

4.1. The regulations then go on to state that risk assessments must address the risk to women of child bearing age where "the work is of a kind which could involve risk, by reason of her condition, to the health and safety of a new or expectant mother, or that of her baby, from any processes or working conditions, or physical, biological or chemical agents", and that these must also consider "measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding".

4.2. If it is not possible to take action to ensure that the employee is not exposed to the identified risks, consideration must be given to altering her working conditions or hours of work.

4.3. If it is not reasonably practicable to alter the working conditions or hours of work, or if such alteration would not avoid the identified risks, the member of staff will be suspended from work on full pay, for so long as is necessary to avoid the risks.

4.4. The responsibility for carrying out risk assessments rests with the Head of School/Service.

5. Letting the University know about your pregnancy

5.1. In order for the University to meet these obligations outlined above and undertake the necessary risk assessment it is essential that staff covered by the regulations inform their Head of School/Service or Line Manager in writing as soon as possible.

5.2. All the evidence suggests that the first three months of pregnancy is a critical time for the foetus in terms of the effects outside factors may have on development. Early pregnancy can be a difficult and a particularly sensitive time for a woman. In addition, several weeks can pass before the pregnancy is suspected or confirmed and even when confirmed personal circumstances may prevent a woman from discussing this issue with her immediate line manager.

5.3. It is recognised that staff may wish the information to be treated in confidence and this will be respected, except where it is judged necessary to take expert advice e.g. from Human Resources, Occupational Health or University Safety Advisory Services.

5.4. Indeed, it may be necessary to review your working practices, and inform your line manager if you are planning a family because of the nature of your work activity e.g. working with teratogens, carcinogens, steroids, certain biological agents, or ionizing radiation, etc. In such situations it is important that you discuss and agree any changes in working practices beforehand.

5.5. If, in the first instance, there is sensitivity about approaching a line manager for example when you are thinking about having a family then you may approach your usual Human Resources contact, or raise any concerns you have with the University Safety Advisory Services or with Occupational Health. This procedure allows you to talk to someone independent of your workplace and receive advice and guidance about your particular concerns.

5.6. However, following this consultation you may still be advised to consult with your line manager since it might be important to avoid certain activities, e.g. work with teratogens, since the hazards associated with certain activities might have particular risks for the unborn foetus. The best policy is avoidance, especially in the first trimester of a pregnancy. This local consultation is important in order to allow line managers to reorganise activities in order to minimise risks to pregnant workers (which includes those thinking of starting a family).

6. Consideration of hazards and risk control measures

6.1. The following areas are identified in the Regulations as presenting potential risks to new or expectant mothers.

- Working Conditions
- Chemical Agents
- Physical Agents
- Biological Agents

6.2. Detailed guidance on the potential hazards and control of the risks associated with them are outlined in the attached Annex 1 and a risk assessment proforma for pregnant workers is attached at Annex 2.

Annex 1: Advice on specific hazards and control measures for new or expectant mothers

Working conditions

1. Use of visual display units (VDU's)

1.1. The potential risks to be considered are:

1.1.1. Electromagnetic Radiation

Although in the past there has been considerable public concern about possible harmful effects of electromagnetic radiation from Visual Display Units (VDUs), current research indicates that the levels of ionising and non-ionising electromagnetic radiation which are likely to be generated by display screen equipment are well below those set out in international recommendations for limiting risk to human health created by such emissions. A National Radiological Protection Board study has said that such levels do not pose a significant risk to health, and indeed many scientific studies have not shown any link between miscarriages or birth defects and working with VDU's.

1.1.2. Posture

- In the latter stage of pregnancy, to take account of increased abdominal size, it is important that the member of staff regularly changes position to minimise potential postural problems.

- This is not only concerned with upper body stresses, but also those to the lower body. In particular circulatory problems become more pronounced in the later stages of pregnancy and foot rests etc become more important in ensuring good posture.

- Any member of staff who is concerned about working with a VDU during pregnancy can seek advice from:

  - Health and Safety Services: http://www.leeds.ac.uk/safety/
  - Occupational Health: http://www.leeds.ac.uk/occupationalhealth/
  - Human Resources: http://hr.leeds.ac.uk
  - or your local Human Resources contact

- Aside from the advice re posture, there is nothing to suggest that working with VDUs is harmful to a pregnant woman or her unborn child.

Physical agents

2. Manual handling

2.1. Potential Risks

2.1.1. Pregnant workers may be at increased risk from manual handling injury. For example, hormonal changes can affect the ligaments, increasing susceptibility to injury, and postural problems may increase as the pregnancy progresses.

2.1.2. There can also be risks for those who have recently given birth, for example after a caesarean section there is likely to be a temporary limitation on lifting and handling capability.

2.1.3. There is no evidence to suggest that breastfeeding mothers are at greater risk from manual handling injury than any other workers.

2.2. Control of Risk

2.2.1. New and expectant mothers should take special care with regard to moving loads (boxes, equipment) etc. and should not presume that they are capable of moving equipment "as normal". In such situations it is important that employees discuss this with their line manager, with a view to avoiding such aspects of their normal workload or, where this is not possible, reducing the extent of manual handling involved or to alter the way the task is done to minimise fatigue etc. This is particularly important from the 28th week of pregnancy onwards.

2.2.2. If there are any particular difficulties connected with Manual Handling advice can be sought from Health and Safety Services: http://www.leeds.ac.uk/safety/.

3. Ionising radiation

3.1. Potential Risks

3.1.1. Significant exposure to ionising radiation can be harmful to the foetus and this is recognised by placing limits on the external radiation dose to the abdomen of the expectant mother for the declared term of her pregnancy.

3.1.2. If a nursing mother works with radioactive liquids or dusts, these can cause exposure of the child, particularly through contamination of the mother's skin.

3.1.3. Also, there may be a risk to the foetus from significant amounts of radioactive contamination breathed in or ingested by the mother and transferred across the placenta.

3.2. Control of Risk

3.2.1. Work procedures must be reviewed to ensure that exposure of the pregnant woman is as low as reasonably practicable and certainly below the statutory dose limit for pregnant women.

3.2.2. Special attention should be paid to the possibility of nursing mothers receiving radioactive contamination and they should not be employed in work where the risk of such contamination is high.

3.2.3. The working conditions should be such as to make it unlikely that a pregnant woman might receive high accidental exposures to radioactive contamination.

4. Non-ionising radiation

4.1. Potential Risks

4.1.1. Exposure to electric and magnetic fields within current recommendations is not known to cause harm to the foetus or the mother. However, extreme over-exposure to radio-frequency radiation could cause harm by raising body temperature.

4.2. Control of Risk

4.2.1. Exposure to electric and magnetic fields should not exceed the restrictions on human exposure published by the National Radiological Protection Board.

4.2.2. Any member of staff who is concerned about working with radiation can either consult with their Departmental Radiation Protection, or Safety Supervisor or with the University's Radiation Protection Adviser on extension 34203.

5. Thermal comfort

5.1. Potential Risks

5.1.1. When pregnant, women tolerate heat less well and may more readily faint or be more liable to heat stress. The risk is likely to be reduced after birth but it is not certain how quickly an improvement comes about.

5.2. Control of Risk

5.2.1. Since there are no activities with extremes of temperatures at the University then the normal heating/cooling provisions apply.

6. General movement

6.1. Potential Risks

6.1.1. Fatigue from standing and other physical work has long been associated with miscarriage, premature birth and low birth weight.

6.1.2. Excessive physical or mental pressure may cause stress and can give rise to anxiety and raised blood pressure.

6.2. Control of Risk

6.2.1. Ensure that seating is available where appropriate.

6.2.2. Where work involves new or expectant mothers moving around the premises it must be ensured that hours of work and the volume and pacing of work are not excessive and that, where possible, there is some local control over how their work is organised.

6.2.3. Longer or more frequent rest breaks will help to avoid or reduce fatigue.

<u>Chemical and biological agents</u>

7. Chemical agents

7.1. Potential Risks

7.2. Substances, which carry the risk phrases
- R40: possible risk or irreversible effects
- R45: may cause cancer
- R46: may cause heritable genetic damage
- R49: may cause cancer by inhalation

- R61: may cause harm to the unborn child
- R63: possible risk of harm to the unborn child
- R64: may cause harm to breast-fed babies

potentially pose a risk. The actual risk to health of these substances can only be determined following a risk assessment of a particular substance at the place of work – i.e. although the substances listed may have the potential to endanger health or safety, there may be no risk in practice, for example if exposure is below a level which might cause harm.

7.3. Control of Risk

7.3.1. Since these substances have the potential to cause heritable genetic damage, the COSHH assessment in the case of women who are pregnant or who have recently given birth should address these risks.

7.3.2. The Strategy for control of exposure to chemicals should be

- Avoidance – i.e. either getting someone else to work with material, or suspending its use until an appropriate time.

- Substitution – considering whether use of alternatives are possible.

- Limitation of Exposure – limiting extent of use but at same time readdressing control measures
  - both engineering controls, (such as fume cupboards); or
  - personal protective equipment (including consideration of using a higher standard e.g. nitrile versus disposable gloves).

8. Biological agents

8.1. Potential Risks

8.1.1. Many biological agents categorised as hazard group 2, 3, 4 can affect the unborn child if the mother is infected during pregnancy. These may be transmitted through the placenta while the child is in the womb, or during or after birth, for example through breastfeeding or through close physical contact between mother and child.

8.1.2. Examples of agents where the child might be infected in one of these ways are hepatitis B, HIV (the AIDS virus), herpes, TB, syphilis, chickenpox and typhoid.

8.1.3. For most workers, the risk of infection is not higher at work than from living in the community but, in certain occupations, exposure to infections is more likely, for example laboratory workers, health care, people looking after animals and dealing with animal products.

8.1.4. Some biological agents are however known to cause abortion of the foetus or physical and neurological damage.

8.1.5. For example Rubella (German measles) and toxoplasma can harm the foetus, as can some other biological agents, for example cytomegalovirus (an infection common in the community) and chlamydia in sheep. Again the risks of infection are generally no higher for workers than others, except in those exposed occupations.

8.1.6. Where staff are likely to be exposed to such agents, this should be taken into account in risk assessments carried out under the Control of Substances Hazardous to Health Regulations (COSHH).

8.2. Control of Risk

8.2.1. Account must first be taken of:
- the nature of the biological agent;
- how infection is spread;
- how likely contact is;
- what control measures there are.

8.2.2. The control measures may include:
- physical containment;
- hygiene measures;
- use of available vaccines (if exposure justifies this).

<u>Consideration of specific chemical / biological agents</u>

9. Lead and its derivatives

9.1. Potential Risks

9.1.1. Some more recent studies draw attention to an association between low-level lead exposure before the baby is born from environmental sources and mild decreases in intellectual performance in childhood.

9.2. Control of Risk

9.2.1. There are specific regulations for control of exposure to lead and these set both airborne levels and blood lead levels. The latter are lower for women of reproductive capacity.

9.2.2. Given that we are not in an industrial context there are unlikely to be any processes which give rise to a significant risk. However, a COSHH risk assessment should be carried out and if such assessment raises concern about significant absorption, then Occupational Health must be contacted for further advice.

10. Mercury and its derivatives

10.1. Potential Risks

10.1.1. Organic mercury compounds could have adverse effects on the foetus. Animal studies and human observations have demonstrated that exposure to these forms of mercury during pregnancy can slow the growth of the unborn baby, disrupt the nervous system, and cause the mother to be poisoned … but there is no clear evidence of adverse effects on developing foetus from mercury and inorganic mercury compounds.

10.2. Control of Risk

10.2.1. HSE Guidance Notes EH17 and MS12 give practical guidance on the risks of working with mercury and how to control them.

11. Cytotoxic drugs

11.1. Potential Risks

11.1.1. In the long term these drugs cause damage to genetic information in sperm and eggs. Some can cause cancer. Absorption is by inhalation or through the skin.

11.1.2. Exposure should be reduced to as low a level as is reasonably practicable and assessment of the risk should look particularly at preparation of the drug for use, administration of the drug, and disposal of waste (chemical and human).

11.1.3. Those who are trying to conceive a child or are pregnant or breastfeeding should be fully informed of the reproductive risks.

12. Carbon monoxide

12.1. Potential Risks

12.1.1. This is a chemical which readily crosses the placenta and can result in the foetus being starved of oxygen.

12.1.2. There are only a handful of applications where CO gas is used on site.

12.2. Control of Risk

12.2.1. Risk Assessment should ensure that this gas is used under carefully controlled conditions and further advice is available in HSE Guidance Note EH43.

13. Chemical agents absorbed via the skin

13.1. Potential Risks

13.1.1. A variety of chemical agents may pose a risk of exposure via skin absorption.

13.1.2. As with all substances, the risks will depend on the way that the substance is being used as well as on its hazardous properties.

13.2. Control of Risk

13.2.1. The COSHH assessment should address the control measures and in the light of someone indicating they are pregnant, COSHH assessments should be revisited to ensure engineering controls and personal protective equipment (gloves, overalls, fire guards) are adequate. Given that skin absorption is the main risk, the adequacy of gloves in terms of permeability should be scrutinised.

Annex 2: Risk assessment proforma

WORKING CONDITIONS	ACTION	ACTION TAKEN	Y/N
Use of Visual Display Units		Advice given on posture	
		Footrest provided	
		Work organised to allow regular breaks in activity	
		VDU reassessed in light of worker's condition	
Manual Handling		Alternative arrangements made so worker avoids manual handling	
		Worker advised to avoid/minimise manual handling activities	

PHYSICAL AGENTS	ACTION	ACTION TAKEN	Y/N
Ionising Radiation		Work procedures reviewed and exposure as low as reasonably practicable	
		Avoidance of activities where risk of radioactive contamination high	
		Levels below NRPB guidelines	
		RPA consulted	
Non-Ionising Radiation		Safety Advisory Services consulted	
Thermal Comfort		Ventilation and thermal control satisfactory in work area	
General Movement		Working in a standing position minimised, or seat provided, eg: lecturing	
		'Local' control over hours of work/working arrangements	

CHEMICAL AND BIOLOGICAL AGENTS	ACTION	ACTION TAKEN	Y/N
Chemical Agents		Avoidance of use of substances which indicate: • irreversible effects • cancer potential • possible risk to foetus or risk of harm to breast-fed babies (Risk Phrases R40/45/46/49/61/63/64)	
		COSHH assessments reviewed in light of worker's condition to minimise exposure	
		Consideration given to use of substitutes	
		Effectiveness of any personal protective equipment reviewed	
Biological Agents		Avoidance of work with biological agents known to cause damage to foetus, eg: rubella, toxoplasma	
		COSHH assessments reviewed in light of worker's condition to minimise exposure	

CONSIDERATION OF SPECIFIC CHEMICAL/ BIOLOGICAL AGENTS	ACTION	ACTION TAKEN	Y/N
Lead		Lead exposure minimised / avoided	
		Review of COSHH assessment, including consideration of bloods/lead monitoring	
		Liaising with Occupational Health re risks	
Mercury		Mercury exposure managed / avoided	
		Avoidance of use of organo-mercury compounds	
		Review of COSHH assessments, including consideration of local exhaust ventilation and personal protective equipment	
Cytotoxic Drugs		Avoidance of working with these drugs	
		If used, COSHH assessments reviewed with particular emphasis on effectiveness of personal protective equipment	
		Workers advised as to reproductive risks	
Carbon Monoxide		Exposure to Carbon Monoxide minimised / avoided.	
		COSHH assessment reviewed	
Chemical Agents absorbed via the skin		Agents with skin absorption risk, use minimised / avoided	
		COSHH assessments reviewed	
		Personal Protective Equipment reviewed (ie: gloves suitable impermeability)	