

## UNIVERSITY OF SUSSEX

**SPG-38-08**  
(revised March 2010)

### **New and Expectant Mothers at Work**

#### **Introduction**

The law at present requires employers, such as the University, to assess the risks to all employees that arise from their work, and to do what is reasonably practicable to avoid or control those risks. The Management of Health and Safety at Work (Amendment) Regulations 1994 (MHSW), explicitly requires that special attention is given to identifying and controlling risks that may affect women who are pregnant, who have given birth in the previous six months or who are breastfeeding. The objective is to avoid adverse effects being suffered either by the woman herself, by the foetus or by the new-born child.

To comply with the requirements of the above Regulations the University, and therefore the School, must ensure that the following measures are implemented with respect to the groups concerned:

- a) that a risk assessment be undertaken which should examine risks from any process or working conditions, including physical, biological or chemical agents; which may affect the health and safety of new and expectant mothers and that of their child. All risk assessments should include any specific risk to females of child bearing age who could become pregnant.
- b) that steps are taken to ensure that women in the above groups are not exposed to risks which would endanger their health and safety or that of their child;
- c) in the case of an individual employee, whose circumstances are such that compliance with relevant statutory requirements would not avoid risk to health and safety, the University shall, if it is reasonable to do so, and would avoid such risks, alter her working conditions or hours of work;

Working conditions generally considered acceptable may no longer be so during pregnancy and while breastfeeding. These risks will vary depending on your health and different stages of your pregnancy.

#### **Relevant Legislation**

The Management of Health and Safety at Work Regulations 1999(MHSW) include regulations that protect health and safety of new and expectant mothers.

Under the Sex Discrimination Act 1975, any breach of health and safety legislation in relation to new and expectant mothers is automatically considered sex discrimination.

Acknowledgement – Dr Teresa Knapp

## **Definitions**

“New or Expectant Mother” – pregnant worker, a worker who have given birth in the previous six months or a mother who is breastfeeding.

## **Employee Duties**

You do not have to inform your employer that you are pregnant or breastfeeding, but it is important for you and your child’s health and safety that you provide them with written notification as soon as possible. In any case employees should notify their Supervisor (or where confidentiality is required during the first few weeks of pregnancy, the School Safety Adviser), as soon as they are aware that they are pregnant.

Listed below are some of the major known hazards in the laboratory and work place which may affect new and expectant mothers (NB: this is not a comprehensive list)

## **Physical Hazards**

### **Manual Handling of Loads**

Pregnant women are especially at risk when performing manual handling tasks. This is due both to postural difficulties and to hormonal changes that may increase the susceptibility of the body to injury. There can also be an increased risk to those who have recently given birth, particularly after a caesarean section.

There is no evidence that breastfeeding mothers are at greater risk than other workers when performing manual handling tasks.

If possible, manual handling should be avoided by pregnant women. If this is not possible the character and extent of the tasks should be controlled so that the risk of injury is minimised. In cases where heavy or repetitive manual handling is an integral part of the individual's job, they may need to be temporarily re-deployed during the pregnancy and for a period of time after they have given birth.

The School HealthSafety and Environment web site provides guidance on safe manual handling and the assessment of manual handling tasks.  
[http://www.sussex.ac.uk/lifesci/documents/manual\\_handling\\_guidance.pdf](http://www.sussex.ac.uk/lifesci/documents/manual_handling_guidance.pdf)

### **Work with Display Screen Equipment (DSEs)**

There has been considerable public concern about reports of higher levels of miscarriage and birth defects among some groups of display screen equipment users. The current view of the National Radiological Protection Board and the Health and Safety Executive is 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 and do not pose a significant risk to health.

No special protective measures are therefore needed to protect pregnant women or any other workers who are using display screen equipment.

Further advice on the use of display screen equipment is given in the School of Life Sciences website

[http://www.sussex.ac.uk/lifesci/documents/l49\\_dse\\_regs\\_1992.doc](http://www.sussex.ac.uk/lifesci/documents/l49_dse_regs_1992.doc)

<http://www.sussex.ac.uk/lifesci/1-4-1-15.html>

### **Ionising Radiation**

When their pregnancy is confirmed, staff working with ionising radiation should inform their School Radiation Protection Supervisor, who must make arrangements to minimise their exposure to radiation. A pregnant woman should not perform duties that would require her to be designated a classified person. These duties would include dispensing from high activity stock solutions and iodination of protein where there is a risk of an intake of radioactive material.

Further advice is available from School of Life Sciences Health, Safety and Environment Office or the University Radiation Protection Officer.

### **Non-ionising Radiation**

This term includes optical radiation (including ultraviolet and infra-red sources and lasers) and electromagnetic fields and waves (e.g. radiofrequency (RF) radiation, microwaves).

Pregnant or breastfeeding women are at no greater risk from exposure to optical radiation than other workers. Exposure to electric and magnetic fields should be kept within the limits set by the National Radiological Protection Board.

Further advice is available from the University Safety Office.

### **Shocks, Vibrations or Movement**

Pregnant women, or those who have recently given birth, should avoid work likely to involve uncomfortable whole body vibration, especially at low frequencies, or where the abdomen is exposed to shocks or jolts, (e.g. riding in or driving off-road vehicles).

Breastfeeding women are at no greater risk than other workers.

### **Noise**

There is no specific risk from exposure to high noise levels, although prolonged exposure may cause stress leading to raised blood pressure and tiredness. Compliance with the current requirements of the Noise at Work Regulations 1989 are sufficient to meet the needs of new or expectant mothers.

Advice on these Regulations is available from the University Safety Office.

### **Extremes of Heat or Cold**

When pregnant, women have a lower tolerance to heat and may be more liable to faint or suffer heat stress. However, temperatures within the range encountered in normal office work are not likely to represent a significant hazard.

Where conditions in the workplace involve extremes of temperature e.g. certain catering areas, steps should be taken to minimise the risk to pregnant women.

Access to refreshments and rest periods may help to alleviate some problems that may arise.

### **Work in Hyperbaric Atmospheres and Underwater Diving**

Pregnant women should not work in environments that are pressurised above normal atmospheric pressure nor should they undertake underwater diving. Women who are breastfeeding may undertake these activities unless advised otherwise by their doctor.

Facilities - Pregnant women and new mothers are prone to fatigue and raised blood pressure. It is, therefore, important that the work schedule is arranged to allow adequate rest breaks, in suitable rest areas, for pregnant women and new mothers.

Breastfeeding mothers must have suitable facilities which allow the mother to feed the baby in an area which is protected from other hazards e.g. chemical hazards. This area should be away from the main work environment.

### **Chemical Hazards**

Work with chemical substances that are classed as hazardous to health is covered by the Control of Substances Hazardous to Health Regulations 1994. General advice on control measures can be found in the COSHH Approved Code of Practice, and from the School of Life Sciences Health, Safety and Environment Office or the University Health, Safety and Environment Office.

### **Inhalation, Ingestion and Absorption of Chemical Agents**

Hazardous substances can enter the body by inhalation, ingestion or absorption through the skin where they may cause adverse effects. Chemicals which are absorbed through the skin are labelled "Sk" in the HSE book EH40. This book lists all the Maximum Exposure Limits (MEL) and Occupational Exposure Standards (OES) for known hazardous substances with respect to inhalation. Details are available from the School of Life Sciences Health, Safety and Environment Office on request.

The container label and material safety data sheet (MSDS) should be consulted for information on substances not listed in EH40.

During pregnancy particular care should be taken to reduce exposure to any hazardous substance by using engineering control measures (fume cupboards, enclosed processes, etc) where possible, and personal protective equipment (gloves, lab coats, faceshields, etc) as an additional precaution.

### **Carcinogens, Teratogens and Mutagens**

Some substances may be labelled with standard risk phrases which indicate that a particular hazard is associated with the material. Materials which should carry such labelling are listed in the approved list for supply issued under the Chemicals (Hazard Information and Packaging) Regulations.

Currently there are about 200 such substances. The standard risk phrases may be found on the container label or on the material safety data sheet for the substances. The wording that corresponds to these phrases is as follows:

R40: Possible risk of irreversible effects;

R45: May cause cancer;

R46: May cause heritable genetic damage;

R60: May impair fertility;

R61: May cause harm to the unborn child;

R62: Possible risk of impaired fertility;

R63: Possible harm to the unborn child;

R64: May cause harm to breastfed babies;

R49: May cause cancer by inhalation;

These materials are particularly hazardous to those trying to conceive a child or to new or expectant mothers. Exposure to them should be avoided by these groups of workers. In some cases this may not mean the same as avoidance of use as it may still be possible to use such high hazard substances if exposure is prevented by the control methodology e.g. glove box, fume cupboard, etc.

### **Inhalation Anaesthetics**

Over the past decade there has been concern about the possibility of genetic and physiological effects resulting from long term exposure to some inhalation anaesthetics.

Both halothane and nitrous oxide have been allocated

Occupational Exposure Standards (OES) of 10ppm (halothane) and 100ppm (nitrous oxide).

Where properly maintained and operated gas scavenging systems are in use there is usually no difficulty in keeping concentrations below these levels.

### **Antimitotic (cytotoxic) Drugs**

These drugs are used in cancer chemotherapy and have the ability to arrest the multiplication of living cells. They achieve this by interfering with the essential functions of the cell, especially those involving cell division and can, in the long term, cause damage to the sperm and egg cells. Some can cause cancer. Occupational exposure is usually by inhalation or absorption through the skin.

These substances are exempt from the normal labelling requirements because they are drugs.

Those who are trying to conceive a child, are pregnant, or breastfeeding, should avoid exposure to such materials.

### **Carbon Monoxide**

Pregnant women should avoid working in an atmosphere where there is a high concentration of carbon monoxide (CO). Carbon monoxide readily crosses the placenta and may result in adverse effects on the foetus. High levels may be found in vehicle repair workshops, or other areas, where internal combustion engines are run without adequate extract ventilation.

There is no indication that breastfed babies suffer adverse affects as a result of their mother's exposure to carbon monoxide.

### **Lead and Lead Derivatives**

High exposure to lead is associated with increased frequency of spontaneous abortion, stillbirths and infertility. Lead can also enter breast milk and may adversely affect the nervous system of young children. For these reasons

the Control of Lead at Work Regulations set a lower permissible blood lead level for women of reproductive age than for men.

When pregnancy is confirmed significant exposures to lead should be avoided.

### **Mercury and Mercury Derivatives**

There is evidence that organic mercury compounds may have adverse affects on the foetus. No such clear evidence exists for mercury or inorganic mercury compounds, although it would be advisable to avoid exposure to these materials also.

### **Biological Hazards**

Work with biological agents is covered by the Control of Substances Hazardous to Health Regulations 1994 and general advice on control measures can be found in the COSHH Approved Code of Practice. Further advice is available from the School of Life Sciences Health, Safety and Environment Office or the University Health, Safety and Environment Office.

Work with Biological Agents <http://www.sussex.ac.uk/lifesci/1-4-1-4.html> - Hazardous biological agents are classified by the Health and Safety Executive's (HSE) Advisory Committee on Dangerous Pathogens (ACDP) into one of four hazard categories. These classifications are set out in an HSE publication entitled "Categorisation of biological agents according to hazard and categories of containment". Many biological agents within hazard

categories 2, 3 and 4 can affect the foetus if the mother is infected during pregnancy or pose a significant risk to a new born child.

Exposure to biological agents may occur in a laboratory setting where there is a deliberate intention to work with the agent or through other work where exposure to the agent is foreseeable but is incidental to the principal task.

Normally the precautions taken in biological laboratories are such as to minimise the risk of accidental exposure of any staff to the agents handled. In many cases such "good laboratory practice" will be sufficient to adequately control the risks to new or expectant mothers. However, where there are particular risks associated with some biological agents additional precautions may be appropriate. This may include ceasing work with such agents for the duration of the pregnancy and for a period after the birth.

When working with animals there may be a risk of zoonotic infection if the animals are infected with agents that may be transmitted to humans. One of the best known examples of this is enzootic abortion in sheep. This is caused by the organism *Chlamydia psittaci* and may cause abortion and illness in pregnant women. Pregnant women should therefore be excluded for working with pregnant ewes.

Other examples of agents where there may be a risk during pregnancy include rubella (German Measles), toxoplasma and cytomegalovirus. Agents such as Hepatitis B, HIV, Herpes, tuberculosis, syphilis, chickenpox and typhoid may pose a risk to the child either through infection of the mother during pregnancy or through infection of the child after birth as a result of breastfeeding or other close physical contact. Note that these are not comprehensive lists.

Pregnant women can be at their most vulnerable from potentially infectious agents during the early weeks of pregnancy. For this reason, women who are intending to become pregnant and who work with the agents indicated above, or with others posing similar hazards, should seek medical advice from the University Occupational Health Service on the advisability of continued exposure to these agents.

Further advice on the hazards outlined is available from:

- University Health Safety and Environment Office Ext. 8376
- University Occupational Health Service Ext. 7255

**FACTORS TO BE CONSIDERED DURING THE RISK ASSESSMENT PROCESS**

The impact of aspects of pregnancy that may affect work are listed below. The impact will vary during the course of pregnancy and would therefore need to be kept under review

ASPECTS OF PREGNANCY	FACTORS IN WORK
Morning Sickness	Early shift work Exposure to nauseating smells.
Backache	Standing/manual handling/posture
Varicose Veins	Standing/sitting
Haemorrhoids	Working in hot conditions
Frequent visits to toilet	Difficulties in leaving job/site of work
Increasing size	Use of protective clothing Work in confined areas Manual handling
Tiredness	Overtime Evening work Room temperature
Balance	Problems of working on wet/slippery surfaces
Comfort	Problems of working in tightly fitting uniforms
Dexterity, agility, co-ordination, speed of movement, reach may be impaired because of increasing size.	The individual may find some aspects of their role more difficult as their pregnancy progresses.

**Useful References**

Health and Safety Executive Publications

New and Expectant Mothers at Work - A Guide for Employers HS(G)122 1994 ISBN 0 7176 08263;

Control of Lead at Work Approved Code of Practice (rev) 1985 ISBN 0 11 883780 X;

Management of Health and Safety at Work Approved Code of Practice L21 1992 ISBN 0 7176 04128;

Manual Handling Operations Regulations 1992. Guidance on Regulations L23 1992 ISBN 0 7176 0411 X;

Occupational Exposure Limits HSE Guidance Note EH40/96 1996 ISBN 0 7176 0876 X;

Precautions for the Safe Handling of Cytotoxic Drugs HSE Guidance Note MS21 1983 ISBN 0 11 883571 8;

Mercury - Health and Safety Precautions HSE Guidance Note EH17 1977 ISBN 0 11 883176 3;

Carbon Monoxide HSE Guidance Note EH.43 1984 ISBN 0 11 883597 1;

Occupational Health Aspects of Pregnancy MA6 1989;

Pregnancy and Work - Guidance for Women and their Employers MS(B)11 1989 (free leaflet available from HSE Area Offices)