



**University of
Leicester**



New and Expectant Mothers At Work

**Guidance for University
Departments and Functions**

March 2015

Safety Services Office

HEALTH AND SAFETY OF PREGNANT WORKERS

INTRODUCTION

1. **As the result of a European Directive, the Health & Safety Commission has introduced Regulations, the aim of which is to protect the health and safety of new and expectant mothers and their babies. This is to be achieved primarily by the employer assessing the risks to which such workers are exposed at work, and by eliminating or reducing such risks, or by removing the worker from exposure.**
2. Pregnancy should not be regarded as ill-health. It should be regarded as part of normal existence and its health and safety implications can, and should, be dealt with as an inherent part of the University's overall health and safety programme. Many women continue working while they are pregnant and return to work while they are breastfeeding. Some hazards in the workplace may adversely affect the health and safety of new and expectant mothers and of their babies.

3. General duties of employers.

When carrying out risk assessments, and where women of child-bearing age are employed, employers must take particular account of risks to potential new or expectant mothers. If the risks cannot be avoided by other means, changes will need to be made to working hours or conditions. Alternative work may need to be offered or, if none of these are possible, the worker must be allowed paid time off work for as long as is necessary to protect her health and safety and that of her child. The Regulations require employers to take this action after having been informed in writing that a worker is pregnant. The employer should then request from a registered medical practitioner or a registered midwife, a certificate confirming the pregnancy.

The attached Action Plan may be consulted in order to clarify the necessary steps.

4. General duties of employees

- 4.1 In order to protect her own health as well as the health of the child she is carrying or nursing, the worker is strongly advised to request her medical or midwifery adviser to notify her employer in writing as soon as the fact of pregnancy is established. The employer then takes the steps outlined in the attached Action Plan.
- 4.2 It will be appreciated that, since the primary aim of the Regulations is to protect the health of mothers and of their babies, there are significant advantages in having any risk assessments carried out as soon as possible.
- 4.3 Any worker of child-bearing age may, if she wishes and in confidence, inform her employer of her intention to start a family, thus enabling the earliest possible action to be taken to assess, and take action in respect of, risks at the workplace with which she may be concerned. Alternatively, she may consult her medical or midwifery adviser and request that her intention to start a family be

communicated in confidence to her employer. Employees should consult the appropriate Action Plan to clarify the necessary steps to be taken.

5. General guidance on workplace risks

These Guidance Notes set out the known risks to new and expectant mothers and give detailed advice on the action needed to comply with the Regulations. The guidance is also applicable to students who are pregnant or breastfeeding. Further advice deals with some aspects of pregnancy, which it would be appropriate to take into account when considering specific arrangements in Departments and Offices for the protection of pregnant or breastfeeding workers. This latter advice, however, reflects good practice only and is not part of the strictly legal duties under the Regulations.

6. ASSESSING THE RISKS

6.1 Risk assessment of work activities is now a well-understood technique. In assessing risks to new or expectant mothers, special attention must be paid to those risks that present danger to the mother or her unborn child, or to a child of a woman who is still breastfeeding. Advice on the techniques of risk assessment is available separately from the Safety Services Office.

6.2 Physical, biological and chemical agents, processes and working conditions which may affect the health and safety of new or expectant mothers are set out in the attached tables. Some of these are already listed in existing legislation such as the Control of Substances Hazardous to Health (COSHH), the Manual Handling and other Regulations. The University has published guidance on these and other aspects of health and safety which are available on the Safety Services website.

7. DECIDING WHO MIGHT BE AT RISK, AND HOW

Risk assessments may show that there are substances, processes or activities which could harm the health or safety of new and expectant mothers or their children. However, it is important to keep in mind that the risks may be different, depending on whether the worker is pregnant, has recently given birth or is breastfeeding.

8. INFORMING THE WORKER(S) ABOUT THE RISKS

8.1 If an assessment confirms that there is a risk, all female employees of child-bearing age should be informed about the risks if they are, or could be in the future, pregnant or breastfeeding.

8.2 These categories of worker should also be told what is being done, or planned, to avoid the exposure of new and expectant mothers to the identified risks.

9. KEEPING THE RISK ASSESSMENT UNDER REVIEW

9.1 Risk assessments must be regularly reviewed in order to ensure that they remain relevant and up-to-date. The frequency and extent of the review will depend on a number of factors including:

- 9.1.1 the kind of work activity and the extent to which new or expectant mothers are involved in those aspects of it which pose, or may pose, risks to them or their offspring;
 - 9.1.2 what stage of pregnancy/motherhood they are at. The risks to the human foetus vary depending on its development.
- 9.2 The risks during breastfeeding are different, but workers need to be protected for as long as they are breastfeeding. The Department of Health recommends exclusive breastfeeding for the first four to six weeks of motherhood, but whereas some women discontinue breastfeeding at or around this time, others may continue for much longer, and experience suggests that there are advantages to the child in doing so. It is for women themselves to decide how long they want to continue.
- 9.3 Although there is no strictly legal requirement to do so, the responsible employer will wish to provide a safe and healthy environment for workers who are breastfeeding, or to express and store milk. The Workplace (Health, Safety and Welfare) Regulations 1992 require suitable facilities to be provided for workers who are pregnant or breastfeeding to rest. There is a room available on campus for breast feeding/expressing milk which has storage facilities and is located in the Attenborough Seminar Block (Room 103). Staff and students wishing to make use of this facility should contact the Equalities Unit.
- 9.4 Where workers continue to breastfeed for many months after the birth, the risks will need to be reviewed regularly. It will be necessary to follow the three steps outlined below to avoid exposure to risk, i.e.:
 - 9.4.1 adjust the working conditions;
 - 9.4.2 alternate work and work patterns;
 - 9.4.3 allow paid time off for as long as the risks pose a threat to the worker's health or safety.

PHYSICAL AGENTS - where these are regarded as agents causing foetal lesions and/or likely to disrupt placental attachment, and in particular:

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Shocks, vibration or movement	Regular exposure to shocks, low frequency vibration, for example driving or riding in off-road vehicles, or excessive movement, may increase the risk of a miscarriage. Long-term exposure to vibration does not cause foetal abnormalities but often occurs with heavy physical work, so there may be an increased risk of prematurity or low birth weight.	Pregnant workers and those who have recently given birth are advised to avoid work likely to involve uncomfortable whole body vibration, especially at low frequencies, or where the abdomen is exposed to shocks or jolts. Breastfeeding workers are at no greater risk than other workers.	None specific.
Manual handling of loads where there is a risk of injury	<p>Pregnant workers are especially at 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.</p> <p>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. There is no evidence to suggest that breastfeeding mothers are at greater risk from manual handling injury than any other workers</p>	The changes an employer should make will depend on the risks identified in the assessment and the circumstances of the business. For example it may be possible to alter the nature of the task so that risks from manual handling are reduced for all workers including new or expectant mothers. Or it may be necessary to address the specific needs of the worker and reduce the amount of physical work, or provide aids for her in future to reduce the risks she faces.	<p>Manual Handling Operations Regulations 1992 require employers to:</p> <ul style="list-style-type: none"> • avoid the need for hazardous manual handling, so far as is reasonably practicable; • assess the risks from those operations that cannot be avoided; and • take steps to reduce these risks to the lowest level reasonably practicable.
Noise	<p>There appears to be no specific risk to new or expectant mothers or to the foetus, but prolonged exposure to loud noise may lead to increased blood pressure and tiredness.</p> <p>No particular problems for women who have recently given birth or who are breastfeeding.</p>	The requirements of the Noise at Work Regulations 2005 should be sufficient to meet the needs of new or expectant mothers.	Noise at Work Regulations 2005 apply to all workers exposed to loud noise where there is a risk to hearing.

PHYSICAL AGENTS - continued

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Ionising Radiation	<p>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.</p> <p>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.</p> <p>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.</p>	<p>Work procedures should be designed to keep exposure of the pregnant woman as low as reasonably practicable and certainly below the statutory dose limit for pregnant women.</p> <p>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.</p> <p>The working conditions should be such as to make it unlikely that a pregnant woman might receive high accidental exposures to radioactive contamination.</p>	Ionising Radiations Regulations 1999 and supporting Approved Codes of Practice.
Non-ionising electromagnetic radiation (NIEMR)	<p>Optical radiation: Pregnant or breastfeeding mothers are at no greater risk than other workers.</p> <p>Electromagnetic fields and waves (e.g. radio-frequency radiation): 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.</p>	<p>Exposure to electric and magnetic fields should not exceed the restrictions on human exposure published by Public Health England .</p>	None specific.
Extremes of cold or heat	<p>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.</p> <p>Breastfeeding may be impaired by heat dehydration.</p> <p>No specific problems arise from working in extreme cold, although clearly for other health and safety reasons, warm clothing should be provided</p>	<p>Pregnant workers should take great care when exposed to prolonged heat at work, for example when working near furnaces.</p> <p>Rest facilities and access to refreshments would help.</p>	None specific.

PHYSICAL AGENTS - continued

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Movements and postures, travelling - either inside or outside the establishment - mental and physical fatigue and other physical burdens connected with the activity of new or expectant mothers	<p>Fatigue from standing and other physical work has long been associated with miscarriage, premature birth and low birth weight.</p> <p>Excessive physical or mental pressure may cause stress and can give rise to anxiety and raised blood pressure.</p> <p>Pregnant workers may experience problems in working at heights, for example ladders, platforms, and in working in tightly fitting workspaces or with workstations which do not adjust sufficiently to take account of increased abdominal size, particularly during the later stages of pregnancy. This may lead to strain or sprain injuries. Dexterity, agility, co-ordination, speed of movement, reach and balance may also be impaired, and an increased risk of accidents may need to be considered.</p>	<p>Ensure that hours of work and the volume and pacing of work are not excessive and that, where possible, the employees themselves have some control over how their work is organised.</p> <p>Ensure that seating is available where appropriate.</p> <p>Longer or more frequent rest breaks will help to avoid or reduce fatigue.</p> <p>Adjusting workstations or work procedures may help remove postural problems and risk of accidents.</p>	
Work in hyperbaric atmosphere, for example pressurised enclosures and underwater diving	<p>Compressed air: People who work in compressed air are at risk of developing the bends. This is due to free bubbles of gas in the circulation.</p> <p>It is not clear whether pregnant women are more at risk of the bends but potentially the foetus could be seriously harmed by such gas bubbles.</p> <p>For those who have recently given birth there is a small increase in the risk of the bends.</p> <p>There is no physiological reason why a breastfeeding mother should not work in compressed air (although there would be obvious practical difficulties).</p>	<p>Pregnant workers should not work in compressed air.</p>	<p>Work in Compressed Air Special Regulations 1996</p>
	<p>Diving: Pregnant workers are advised not to dive <i>at all</i> during pregnancy due to the possible effects of exposure to hyperbaric environment on the foetus.</p> <p>There is no evidence to suggest that breastfeeding and diving are incompatible.</p>	<p>Pregnancy is viewed as a medical reason not to dive. The diving regulations include the provision that if a diver knows of any medical reason why they should not dive, they should disclose it to the dive supervisor and/or refrain from diving</p> <p>The diving regulations also require all divers to undertake an annual medical examination. In the HSE guidance leaflet on the medical examination of divers, doctors are advised that pregnant workers should not dive.</p>	<p>The Diving Operations at Work Regulations 1997</p>

BIOLOGICAL AGENTS			
LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Any biological agent of hazard groups 2,3 and 4 (Categorisation of biological agents according to hazard and categories of containment - Advisory Committee on Dangerous Pathogens).	Many biological agents within the three risk groups 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. 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. 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.	Depends on the risk assessment, which will take account first of the nature of the biological agent, how infection is spread, how likely contact is, and what control measures there are. These may include physical containment, hygiene measures, use of available vaccines if exposure justifies this. If there is a known high risk of exposure to a highly infectious agent, then it will be appropriate for the pregnant worker to avoid exposure altogether.	Control of Substances Hazardous to Health Regulations 2002; Approved Code of Practice on the control of biological agents; approved list of biological agents.
Biological agents known to cause abortion of the foetus, or physical and neurological damage. These agents are included in hazard groups 2, 3 and 4.	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. The risks of infection are generally no higher for workers than others, except in those exposed occupations (see above).	See above.	See above.

CHEMICAL AGENTS - The following chemical agents in so far as it is known that they endanger the health of pregnant women and the unborn child

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Substances labelled R40, R45, R46 and R47 under Directive 67/548/EEC [since amended or adapted on a number of occasions].	<p>There are about 200 substances labelled with these risk phrases:</p> <p>R40: possible risk of irreversible effects</p> <p>R45: may cause cancer</p> <p>R46: may cause heritable genetic damage</p> <p>R47: may cause birth defects - this is due to be replaced in 1994/95 by the risk phrases:</p> <p>R61: may cause harm to the unborn child</p> <p>R63: possible risk of harm to the unborn child</p> <p>R64: may cause harm to breastfed babies</p> <p>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.</p>	With the exception of lead (see below) and asbestos these substances all fall within the scope of COSHH. For work with hazardous substances, which include chemicals which may cause heritable genetic damage, employers are required to assess the health risks to workers arising from such work, and where appropriate prevent or control the risks. In carrying out assessments employers should have regard for women who are pregnant, or who have recently given birth.	<p>Control of Substances Hazardous to Health Regulations (COSHH).</p> <p>Chemicals (Hazard Information and Packaging) Regulations 2009 (CHIP).</p>
Chemical agents and industrial processes in Annex 1 to Directive 90/394/EEC.	The substances, preparations and processes listed in Annex 1 of the EC Directive on the Control of Carcinogenic Substances are also covered by COSHH (see above).		COSHH (see above).
Mercury and mercury derivatives.	<p>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.</p> <p>No clear evidence of adverse effects on developing foetus from studies of humans exposed to mercury and inorganic mercury compounds.</p> <p>No indication that mothers are more likely to suffer greater adverse effects from mercury and its compounds after the birth of the baby.</p> <p>Potential for health effects in children from exposure of mother to mercury and mercury compounds is uncertain.</p>	<p>Guidance Notes</p> <p>EH17: <i>Mercury - health and safety precautions</i></p> <p>MS12: <i>Mercury - medical surveillance</i></p> <p>give practical guidance on the risks of working with mercury and how to control them.</p>	Mercury and mercury derivatives are covered by the requirements of COSHH.

CHEMICAL AGENTS - continued

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Antimitotic (cytotoxic) drugs	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.	<p>There is no known threshold limit and exposure must be reduced to as low a level as is reasonably practicable. Assessment of the risk should look particularly at preparation of the drug for use (pharmacists, nurses), administration of the drug, and disposal of waste (chemical and human).</p> <p>Those who are trying to conceive a child or are pregnant or breastfeeding should be fully informed of the reproductive hazard.</p> <p>HSE's Guidance Note MS21 <i>Precautions for the safe handling of cytotoxic drugs</i> gives information about the health hazards and advice on avoidance/reduction of risk.</p>	COSHH.
Chemical agents of known and dangerous percutaneous absorption (i.e. that may be absorbed through the skin). This includes some pesticides.	The HSE guidance booklet EH40 <i>Occupational exposure limits</i> , updated annually, contains tables of inhalation exposure limits for certain hazardous substances. Some of these substances can also penetrate intact skin and become absorbed into the body, causing ill-health effects. These substances are marked 'Sk' in the tables. As with all substances, the risks will depend on the way that the substance is being used as well as on its hazardous properties. Absorption through the skin can result from localised contamination, for example from a splash on the skin or clothing, or in certain cases, from exposure to high atmospheric concentrations of vapour.	<p>Take special precautions to prevent skin contact. Where possible, use engineering methods to control exposure in preference to personal protective equipment, such as gloves, overalls or face shields. For example perhaps enclose the process or redesign it so that less spray is produced. Where you must use personal protective equipment (either alone or in combination with engineering methods), ensure that it is suitable.</p> <p>The Control of Pesticides Regulations, sets out general restrictions on the way that pesticides can be used. In addition all pesticides must be approved before they can be advertised, sold, supplied, used or stored. Conditions can be put onto the approval, which may for example limit the way the product can be used (for example restrict the way that it can be applied), require that certain safety precautions are followed, and restrict who may use it (for example professionals or amateurs). These conditions are reflected on the product label. Failure to comply is an offence.</p>	COSHH (see above).

CHEMICAL AGENTS - continued

LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Carbon monoxide	<p>Carbon monoxide readily crosses the placenta and can result in the foetus being starved of oxygen. Data on the effects of exposure to carbon monoxide on pregnant women are limited but there is evidence of adverse effects on the foetus. Both the level and duration of maternal exposure are important factors in the effect on the foetus.</p> <p>There is no indication that breastfed babies suffer adverse effects from their mother's exposure to carbon monoxide, nor that the mother is significantly more sensitive to carbon monoxide after giving birth.</p>	HSE's guidance note EH43: <i>Carbon monoxide</i> - gives practical advice on the risks of working with carbon monoxide and how to control them. It warns that pregnant women may have heightened susceptibility to the effects of exposure to carbon monoxide.	None specific - except for the general requirements of COSHH in relation to hazardous substances.
Lead and lead derivatives - in so far as these agents are capable of being absorbed by the human organism.	<p>Occupational exposure to lead in the early 1900s, when exposure was poorly controlled, was associated with high frequencies of spontaneous abortion, stillbirth and infertility. 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.</p> <p>The effects on breastfed babies of their mothers' lead exposure have not been studied. However, lead can enter breast milk. Since it is thought that the nervous system of young children is particularly sensitive to the toxic effects of lead, the exposure of breastfeeding mothers to lead should be viewed with concern.</p>	<p>The Approved Code of Practice associated with the lead regulations <i>Control of lead at work</i> sets out the current exposure limits for lead and the maximum permissible blood lead levels for workers who are exposed to lead to such a degree that they are subject to medical surveillance. It gives a blood lead level for men and a lower level for women of reproductive capacity. This lower level is set to help ensure that women who may become pregnant have low blood lead levels. This is to help protect the foetus from injury in the weeks before a pregnancy is confirmed.</p> <p>Once their pregnancy is confirmed, women who are subject to medical surveillance under the lead regulations will normally be suspended from work which exposes them significantly to lead, by the Employment Medical Adviser or Appointed Doctor carrying out the medical surveillance.</p>	Control of Lead at Work Regulations 2002 (CLAW).

WORKING CONDITIONS			
LIST OF AGENTS/WORKING CONDITIONS	WHAT IS THE RISK	HOW TO AVOID THE RISK	OTHER LEGISLATION
Underground mining work	Mines often have difficult physical conditions and many of the physical agents described in this guidance are a regular part of the mining environment.	Managers and contractors are responsible for assessing risks and should take action in line with suggestions elsewhere in this table.	
Work with Display Screen Equipment (VDUs).	<p>Although not specifically listed in the Pregnant Workers Directive, HSE is aware that anxiety about radiation emissions from display screen equipment and possible effects on pregnant women has been widespread. However, there is substantial evidence that these concerns are unfounded. The HSE has consulted Public Health England , which has the statutory function of providing information and advice on all radiation matters to Government Departments, and the advice below summarises scientific understanding -</p> <p>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 and Public Health England does not consider such levels to pose a significant risk to health. No special protective measures are therefore needed to protect the health of people from this radiation.</p> <p>There has been considerable public concern about reports of higher levels of miscarriage and birth defects among some groups of visual display unit (VDU) workers, in particular due to electromagnetic radiation. Many scientific studies have been carried out, but taken as a whole their results do not show any link between miscarriages or birth defects and working with VDUs. Research and reviews of the scientific evidence will continue to be undertaken.</p>	In the light of the scientific evidence pregnant women do not need to stop work with VDUs. However, to avoid problems caused by stress and anxiety, women who are pregnant or planning children and worried about working with VDUs should be given the opportunity to discuss their concerns with someone adequately informed of current authoritative scientific information and advice.	Display Screen Equipment Regulations 1992.

Aspects of pregnancy that may affect work

Apart from the hazards listed in the table, there are other aspects of pregnancy that may affect work. The impact will vary during the course of the pregnancy and you will want to keep their effects under review, for example the posture of expectant mothers changes to cope with increasing size.

ASPECTS OF PREGNANCY

Morning sickness

Backache

Varicose veins

Haemorrhoids

Frequent visits to toilet

Increasing size

Tiredness

Balance

Comfort

Dexterity, agility, co-ordination, speed of movement, reach, may be impaired because of increasing size.

FACTORS IN WORK

Early shift work

Exposure to nauseating smells

Standing/manual handling/posture

Standing/sitting

Working in hot conditions

Difficulty in leaving job/site of work

Use of protective clothing

Work in confined areas

Manual handling

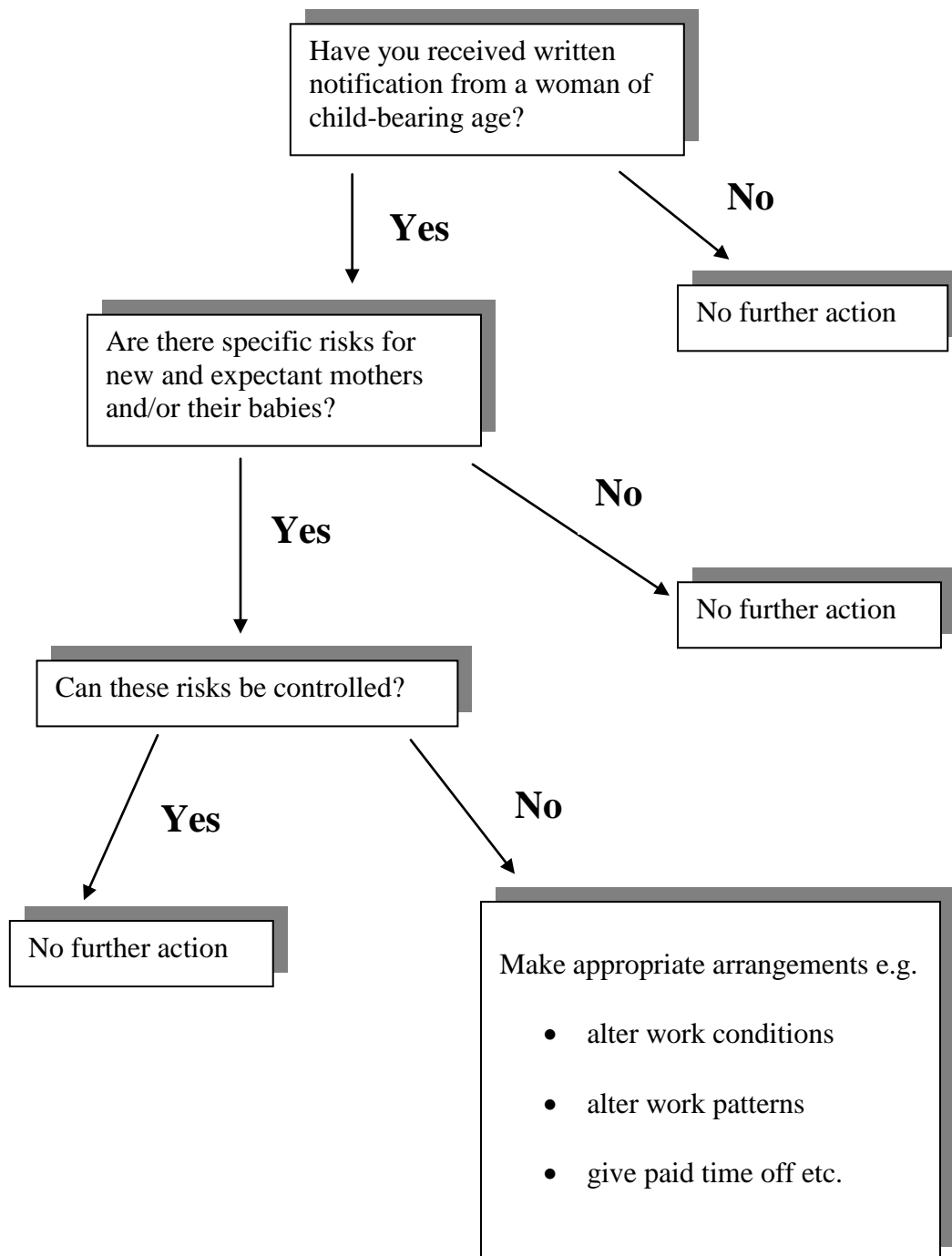
Overtime

Evening work

Problems of working on slippery, wet surfaces

Problems of working in tightly fitting workspaces

Pregnant Workers Action Plan



Special Note: The action detailed above only becomes necessary when the employer has been informed **in writing** that a worker is pregnant.

New and Expectant Mothers at Work

Guidance for Employees of Child Bearing Age

In order that the University can take any necessary steps to ensure the health and safety of expectant mothers and their babies at work, it is important that any precautionary measures required are taken at the earliest possible stage. The following courses of action should be given serious consideration.

