

## **New and expectant mothers at work guidance**

### Document control information

Published document name:	new-expect-mothers-gn
Date issued:	July 2012
Version:	4.0
Previous review dates:	October 2011
Next review date:	Every 2 years and following a significant change in information
Related documents:	Risk assessment policy
Governing policy:	N/A
Guidance to policy:	N/A
Legislation or related information:	Management of Health and Safety at Work Regulations 1999
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### 1. Scope

This guidance note provides information on the extra hazards associated with work that may be relevant to a new or expectant mother, and the actions to be taken to assess and mitigate the risks involved.

### 2. Purpose

The purpose of this guidance note is to give information on the extra hazards associated with work that may be relevant to a new or expectant mother, and the actions to be taken to assess and mitigate the risks involved. The guidance note provides a hazard checklist that can be used identify specific hazards for an individual that can used to produce a risk assessment. The checklist outlines a large variety of hazards from working with display screen equipment to more specialised work for example with embryotoxic chemicals. The checklist should be used to produce a risk assessment by the line manager/supervisor to include relevant sections applicable to the individual's work or study.

### 3. Responsibilities

It is the responsibility of line managers and supervisors to ensure assessments are completed and any necessary control measures to work/study are put in place and monitored

It is the responsibility of a new or expectant mother to notify her line manager or supervisor when she becomes pregnant and to follow University procedures.

### 4. Practice

## 4.1 General

The expectant mother should review her work activities in consultation with her manager/supervisor and/or the school/service Safety advisor (where this may present personal difficulty, the individual is urged to discuss the matter with her GP at the earliest opportunity). The discussions and any appropriate risk assessment should be documented and the outcomes communicated to all those concerned. The risk assessment should be carried out in line with the University risk assessment policy available at; <http://www.bristol.ac.uk/safety/media/po/racop-po.pdf>

Where the expectant mother is an undergraduate student advice can be sought from the Students' Health Centre, Student Support Services and the Students' Union.

Where the expectant mother is an employee, notification to her line manager and Human Resources is needed in writing at least 15 weeks before the expected week of childbirth (see Human Resources 'Maternity and Paternity Policy' - <http://www.bristol.ac.uk/hr/policies/maternity-policy.html>

However, it is important for you and your child's health and safety protection that you inform your line manager with written notification as early as possible. A specific risk assessment can then be undertaken as outlined above.

The new or expectant mother should read the HSE leaflet INDG373, which can be viewed on the HSE website. <http://www.hse.gov.uk/mothers>

Issues to be considered in the review of the risk assessment are given in section 4.3. The outcome of the risk assessment may indicate an adjustment in work activities to remove the hazard for the period of pregnancy and breast-feeding. Where this is not possible for operational or research reasons then the individual will need to be found alternative duties of an appropriate nature.

## 4.2 Teratogens and embryotoxins

Some substances and organisms are well known as being able to cause damage to the unborn child, and can be embryotoxic (notably in the very early stages of pregnancy). The substances are coded with certain 'risk phrases' – these and the hazardous organisms are outlined in the checklist in Appendix 1. Pregnant individuals, or those attempting to become pregnant, should not work with these substances or organisms.

There is some evidence that certain substances commonly found in laboratories can be embryotoxic – even though they have not been assigned teratogenic or similar risk phrases. It appears that these substances can affect a pregnancy but are much less potent than the classified substances. Normal good laboratory practice is regarded as sufficient protection against any embryotoxic effects of these substances (which typically have other hazardous properties, protection measures

for which are required under the Control of Substances Hazardous to Health Regulations 2002).

A teratogen is defined as any agent that can disturb the development of an embryo or fetus. Teratogens may cause a birth defect in the child. Or a teratogen may halt the pregnancy outright. The classes of teratogens include radiation, maternal infections, chemicals, and drugs.

### **4.3 Guidance on reviewing risk assessments**

The Management of Health and Safety at Work Regulations 1999 require employers to carry out "suitable and sufficient" risk assessments which take into consideration new and expectant mothers. As the risk may increase when a woman is a new or expectant mother, then existing risk assessments must be reviewed and subject to additional consideration (note that risks include those to the unborn child or the child of a woman who is still breastfeeding, not just risks to the mother herself).

The HSE publication "New and expectant mothers at work – A guide for employers" HSG122 (2002) identifies specific topics which will require additional assessment. These are included in the assessment form.

### **4.4 Records and review**

The completed risk assessment must be stored in the school/service (e.g. in the women's personnel file) and reviewed at suitable intervals during the pregnancy or period of nursing, and any adjustments made as necessary.

Records should be retained for at least 4 years.

## **5. References**

HSE (1999). Management of Health and Safety at Work Regulations 1999, Approved Code of Practice and Guidance L21. HSE Books. ISBN: 0717624889

HSE (2002). New and expectant mothers at work – A guide for employers, HSG122

HSE (2003). A guide for new and expectant mothers who work, INDG373

<http://www.hse.gov.uk/mothers>

## Appendix 1 Hazard checklist for new or expectant mothers

PHYSICAL RISKS - where these are regarded as agents causing foetal lesions and/or likely to disrupt placental attachment.		
<p>1) Movements and postures</p>	<p><b>Standing:</b> Continuous standing during the working day may lead to dizziness, faintness, and fatigue. It can also contribute to an increased risk of premature childbirth and miscarriage.</p> <p><b>Sitting:</b> Pregnancy-specific changes pose a relatively high risk of thrombosis or embolism, particularly with constant sitting. In the later stages of pregnancy, women are more likely to experience backache, which can be intensified by remaining in a specific position for a long period of time.</p> <p><b>Confined space:</b> Difficulties in working in tightly fitting work spaces or workstations during the later stages of pregnancy can lead to strain or sprain injury, also with impaired dexterity, agility, coordination, speed of movement, reach and balance. Also, associated increased risk of accidents</p>	<p>Control hours, volume and pacing of work. Adjust how work is organised or change type of work if necessary.</p> <p>Ensure seating is available where appropriate, and take longer or more frequent rest breaks to avoid or reduce fatigue.</p> <p>Adjusting workstations or work procedures where this will minimise postural problems and risk of accidents.</p> <p>Review situation as pregnancy progresses.</p>
<p>2) Manual handling (of loads where there is a risk of injury)</p>	<p>Hormonal changes in pregnancy can affect the ligaments increasing susceptibility to injury; postural problems may increase as the pregnancy</p>	<p>It may be possible to alter the nature of the task undertaken to reduce the risk of injury for <u>all</u> workers involved;</p> <p>Or, it may be necessary to reduce the</p>

	<p>progresses.</p> <p>Possible risks for those who have recently given birth – e.g. likely to be a temporary limitation on lifting and handling capability after a Caesarean section.</p>	<p>amount of manual handling (or use aids to reduce the risks) for the specific woman involved.</p>
3) Shocks and vibrations	<p>Regular exposure to shocks, low frequency vibration (e.g. driving or riding in off-road vehicles) or excessive movement may increase the risk of miscarriage.</p> <p>(no particular risk to breastfeeding workers)</p>	<p>Avoid work likely to involve uncomfortable whole body vibration, especially at low frequencies or where the abdomen is exposed to shocks or jolts.</p>
4) Noise	<p>Prolonged exposure to loud noise may lead to increased blood pressure and tiredness.</p>	<p>Conform to the Noise at Work Regulations (check with the Health &amp; Safety Office if in doubt).</p>
5) Radiation (ionising and non-ionising)	<p>Significant exposure can harm the foetus (either through external exposure or by breathing in/ ingesting radioactive contamination) and there are limits on the dose deemed to be acceptable for expectant mothers.</p> <p>Nursing mothers who work with radioactive liquids or dusts can cause exposure of the child, particularly through contamination of the mother's skin.</p>	<p>Work procedures should be designed to keep exposure below the statutory dose limit for pregnant women. <b>A specific risk assessment is required.</b></p> <p>Nursing mothers should not work where the risk of contamination is likely.</p>

6) Diving (and compressed air environments)	<p>Pregnant workers are advised not to dive at <i>all</i> during pregnancy due to the possible effects of exposure to a hyperbaric environment on the unborn child.</p> <p>There is no evidence to suggest that breastfeeding and diving are incompatible</p>	<p>Pregnancy is viewed as a medical reason <b>not to dive</b>. 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>
BIOLOGICAL AGENTS - infectious diseases		
<p>7) Any biological agent of ACDP Hazard Groups 2, 3 and 4 but in particular:-</p> <p><i>Brucella spp.</i></p> <p><i>Chlamydia (psittaci / trachomatis).</i></p> <p><i>Listeria monocytogenes.</i></p> <p><i>Mycobacterium tuberculosis (TB).</i></p> <p><i>Treponema pallidum (syphilis).</i></p> <p><i>Toxoplasma gondii.</i></p> <p><i>Cytomegalovirus.</i></p> <p><i>Herpes simplex.</i></p> <p><i>Hepatitis virus.</i></p> <p><i>HIV.</i></p> <p><i>Paramyxoviridae (mumps / measles).</i></p> <p><i>Parvovirus.</i></p> <p><i>Rubella.</i></p>	<p>Following infection with these agents there is potential for abortion or physical and neurological damage to the unborn child.</p> <p>For most workers, the risk of infection is not higher at work than from elsewhere, but in certain occupations exposure to infections is more likely, for example laboratory work, health care, looking after animals (farms and laboratories) or dealing with animal products (e.g. meat processing).</p> <p>Also, elevated risks if in contact with sewage and contaminated water (at the University or on field trips).</p>	<p>Specific COSHH risk assessments required followed by strict adherence to control measures.</p> <p>These control measures may include physical containment, hygiene measures, and using vaccines if exposure justifies this.</p> <p>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.</p> <p>If vaccination is used it is essential that the subsequent immune response is assessed prior to potential exposure to the infectious agent.</p>

CHEMICAL AGENTS		
<p>8) Carcinogens, mutagens and teratogens.</p> <p>(substances or preparations labelled: R40, R45, R46, R49, R60, R61, R62, R63, R64, and R68)</p>	<p>R40 Limited evidence of a carcinogenic effect</p> <p>R45 May cause cancer</p> <p>R46 May cause heritable genetic damage</p> <p>R49 May cause cancer by inhalation</p> <p>R60 May impair fertility</p> <p>R61 May cause harm to the unborn child</p> <p>R62 Possible risk of impaired fertility</p> <p>R63 Possible risk of harm to the unborn child</p> <p>R64 May cause harm to breast-fed babies</p> <p>R68 Possible risk of irreversible effects</p>	<p>COSHH assessment for the worker to be reviewed.</p> <p>Prevention of exposure is the top priority. Substitution of harmful agents if possible; if not then control by combination of technical measures, Good Laboratory Practice, and the use of Personal Protective Equipment (the latter only as a last resort and in combination with the other control measures).</p> <p>The worker may have to be assigned other duties away from the source of potential exposure for the duration of the pregnancy and nursing period.</p>
<p>9) Embryotoxic chemicals</p>	<p>Some chemicals commonly found in laboratories can be embryotoxic, especially in the very early stages of pregnancy .</p> <p>The potency of these chemicals is considered to be much less than those labelled with the appropriate risk phrases.</p>	<p>Normal good laboratory practice and any other measures identified in the normal COSHH assessment should be followed.</p>
<p>10) Antimitotic (cytotoxic) drugs.</p> <p>May be encountered in health treatment</p>	<p>In the long term these drugs can cause damage to genetic information in sperm and eggs. Some can cause cancer. Absorption is by inhalation or through the</p>	<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</p>



<p>processes or (more likely at UoB) in research.</p>	<p>skin.</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>(pharmacists, nurses), administration of the drug and disposal of waste (chemical and human).</p> <p>These drugs are covered by COSHH, and there is an HSE Guidance Note MISC 615 Safe Handling of Cytotoxic Drugs.  <a href="http://www.hse.gov.uk/pubns/misc615.pdf">http://www.hse.gov.uk/pubns/misc615.pdf</a></p>
<p>11) Chemical agents that are known to be dangerous and may be absorbed through the skin.</p> <p>This includes some <b>pesticides</b>.</p>	<p>The risks will depend on the way in which the substance is being used as well as on its hazardous properties.</p> <p>Absorption through the skin can result from localised contamination – e.g. a splash on skin or clothing, or in certain cases from exposure to high atmospheric concentrations of vapour.</p>	<p>Avoid using such chemicals if possible, but if use is essential; obey the guidelines, take special precautions to avoid skin contact and ensure methods of use and personal protective equipment is suitable.</p> <p>Covered by COSHH and the Control of Pesticides Regulations 1986 (COPR).</p>
<p>12) Carbon monoxide (CO)</p>	<p>Produced when fuels are combusted as a source of power or heat. Risks arise when engines or appliances are operated in enclosed areas. CO is odourless and toxic at low levels.</p> <p>Pregnant women may have heightened susceptibility to the effects of exposure to CO.</p> <p>Carbon monoxide readily crosses the placenta and can result in the unborn child being starved of oxygen.</p> <p>There is no indication that breastfed babies suffer adverse effects from their</p>	<p>The best preventative measure is to eliminate the hazard by changing processes or equipment. If this is not possible control by combination of technical measures, and good working practices, and the use of personal protective equipment (the latter only as a last resort and in combination with the other control measures).</p> <p>Avoid chronic exposure - even occasional exposure to CO could potentially be harmful.</p>

	mothers' exposure to CO.	
13) Lead and lead derivatives.	Wide range of toxic effects during pregnancy and impairment of the child after birth.	<p>The exposure of pregnant and breastfeeding women to lead is specifically prohibited by law if the exposure might jeopardise safety or health.</p> <p>Once pregnancy is confirmed, women should be suspended from any work which exposes them significantly to lead.</p>
<b>WORKING CONDITIONS</b>		
14) Nauseating smells	Can exacerbate morning sickness.	Remove source of smell, control by local exhaust ventilation or alter working patterns as necessary.
15) Facilities (including rest rooms)	<p><b>Resting facilities:</b> Rest is important for new and expectant mothers. Tiredness increases during and after pregnancy and may be exacerbated by work-related factors. The need for rest is both physical and mental.</p> <p><b>Hygiene facilities:</b> Without easy access to toilets (and associated hygiene facilities) at work, due to distance, work processes or systems, etc, there may be increased risks to health and safety, including significant risks of infection and kidney disease.</p> <p>Because of pressure on the bladder and other changes associated with pregnancy,</p>	<p>The need for physical rest may require that the woman concerned has access to somewhere where she can sit or lie down comfortably in privacy, and without disturbance, at appropriate intervals. This is to enable both pregnant and breastfeeding mothers to rest. Schools and Departments need to provide suitable facilities where a woman is able to breast feed if they wish to do so. It is not suitable to provide toilets for this purpose.</p> <p>Expressed milk may not be stored in any fridges that are used to store any scientific or high risk material.</p> <p>Access to clean drinking water should also</p>

	<p>pregnant women often have to go to the toilet more frequently and more urgently than others.</p> <p>Breastfeeding women may also need to do so because of increased fluid intake to promote breast milk production.</p>	<p>be available.</p> <p>Protective measures include adapting rules governing working practices, for example in continuous processing and team working situations, and appropriate measures to enable expectant and nursing mothers to leave their workstation/activity at short notice more frequently than normal, or otherwise (if this is not possible) making temporary adjustments to working conditions as specified in the Management of Health and Safety at Work Regulations.</p>
<p>16) Mental and physical fatigue and working hours</p> <p><i>Mental and physical fatigue and working hours - continued</i></p>	<p>Long working hours, shift work and night work can have a significant effect on the health of new and expectant mothers, and on breastfeeding. Not all women are affected in the same way, and the associated risks vary with the type of work undertaken, the working conditions and the individual concerned. This applies especially to health care. Generally, however, both mental and physical fatigue increases during pregnancy and in the postnatal period due to the various physiological and other changes taking place.</p> <p>Because they suffer from increasing tiredness, some pregnant and breastfeeding women may not be able to work irregular or late shifts or night work, or overtime. Working time arrangements</p>	<p>It may be necessary to adjust working hours temporarily, as well as other working conditions, including the timing and frequency of rest breaks, and to change shift patterns and duration to avoid risks.</p> <p>With regard to night work, alternative day work should be organised for pregnant women on receipt of a medical certificate from their doctor/midwife which states that night work is affecting the health and safety of the woman or her unborn child.</p>

	(including provisions for rest breaks, their frequency and timing) may affect the health of the pregnant woman and her unborn child, recovery after childbirth, or ability to breastfeed, and may increase the risks of stress and stress related ill health. Due to changes in blood pressure which may occur during and after pregnancy and childbirth, normal patterns of breaks from work may not be adequate for new or expectant mothers.	
17) Occupational stress (including postnatal depression)	Stress is associated in some studies with increased incidence of miscarriage and pregnancy loss, and also with impaired ability to breastfeed. Stress also can contribute to anxiety and depression.	Account to be taken of known organisational stress factors (such as shift patterns, job insecurity, workloads, etc) and the particular medical and psychosocial factors affecting the woman. Protective measures may include adjustments to working conditions or hours, and ensuring that the necessary understanding, support and recognition is available on return to work, while her privacy is also respected.
18) Temperature.  Extremes of cold or heat	<p>Prolonged exposure of pregnant workers to hot environments should be kept to a minimum, as there is a greater risk of the worker suffering from heat stress.</p> <p>Working in extreme cold may be a hazard for pregnant women and their unborn children. Warm clothing should be provided. The risks are particularly increased if there are sudden changes in temperature. Breastfeeding may be</p>	<p>Adequate rest and refreshment breaks should be provided alongside unrestricted access to drinking water.</p> <p>New and expectant mothers should note that thirst is not an early indicator of heat stress. They should drink water before they get thirsty, preferably in small and frequent volumes.</p>

	impaired by heat dehydration.	
19) Working with display screen equipment (DSE)	Postural / ergonomic problems due to changes in body proportions.  Circulation problems due to extended periods of sitting.	Review DSE assessment and make appropriate changes to work patterns and workstation equipment.
20) Working alone	Pregnant women are more likely to need urgent medical attention.	Depending on their medical condition, access to women's communications with others may need to be reviewed and revised and levels of (remote) supervision involved, to ensure that help and support is available when required, and that emergency procedures (if needed) take into account the needs of new and expectant mothers.
21) Work at heights	It is hazardous for pregnant women to work at heights, for example ladders, platforms.	A risk assessment should consider any additional risks due to work at height (e.g. working on ladders).

<p>22) Violence</p>	<p>If a woman is exposed to the risk of violence at work during pregnancy, when she has recently given birth or while she is breastfeeding this may be harmful. It can lead to detachment of the placenta, miscarriage, premature delivery and underweight birth, and it may affect the ability to breastfeed.</p> <p>This risk particularly affects workers in direct contact with customers and clients.</p>	<p>Measures to reduce the risk of violence include:</p> <ul style="list-style-type: none"> <li>● Providing adequate training and information for staff;</li> <li>● Improving the design or layout of the workplace;</li> <li>● Changing the design of the job - e.g. avoiding lone working, reducing use of cash, maintaining contact with workers away from work base.</li> </ul> <p>If the risk of violence cannot be significantly reduced, pregnant women and new mothers should be offered suitable alternative work.</p>
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