Health and Safety Guidance

New and Expectant Mothers at Work

GUIDANCE/NEMW/99

This document is intended to clarify health and safety responsibilities and give guidance to those who are involved in managing staff who are pregnant or are breastfeeding.

The guidance comprises information on the main health and safety issues associated with staff pregnancy, the assessment of risks to the mother or child, the provision of rest facilities and a flowchart on actions to take once notified of a pregnancy.

The Occupational Health Unit are able to advise managers on individual cases or give confidential advice to members of staff, while the Health and Safety Unit can provide advice on the nature of the hazards encountered in the workplace. Helpful guidance has been published by the Health and Safety Executive, “New and Expectant Mothers at Work” HS(G)122.

Revised July 2012
New and Expectant Mothers at Work

INTRODUCTION

Women who are pregnant or who have given birth within the last 6 months and are breastfeeding their babies are owed a special duty of care. Whilst pregnancy should not be considered as ill health; some hazards in the workplace may present additional risks to new and expectant mothers or their children. Some simple additional precautions or minor changes to work patterns will normally be all that is required to provide the additional protection needed. The workplace should provide a safe and healthy environment for new mothers who are breastfeeding.

Further information is provided on the Health and Safety Executive’s website dedicated to new and expectant mothers; [http://www.hse.gov.uk/mothers](http://www.hse.gov.uk/mothers)

THE MAIN ISSUES

The main health and safety issues for expectant and new mothers are the need to consider:

- The additional risks from the work to the mother, the unborn child or recently born child
- The additional protection needed to prevent those risks identified
- Provision of some rest facilities for expectant mothers and for new mothers to express milk.

Health and Safety law requires that the employer address these issues. At the University of Birmingham the day-to-day duty lies with the appropriate Head of College, or the Head of Corporate Services, as set out in the University’s Health and Safety Policy (UHSP/0/10).

Pregnancy can be a very sensitive issue and some women may choose not to inform anyone of their pregnancy during the early stages. This has to be respected but once someone in authority (e.g. a supervisor or manager) has been informed action needs to be taken.

ACTION TO TAKE WHEN NOTIFIED OF PREGNANCY

RISK ASSESSMENT

Once a member of staff has notified their supervisor, in writing i.e. letter or e-mail, that they are pregnant a specific risk assessment should be carried out. This should include; a review of the risk assessments of her work activities, any medical advice received on the health of the employee and whether appropriate rest facilities are available. Appendix 2 contains a risk assessment pro-forma that can be used.

* Do I have to tell my employer that I am pregnant or that I am a new mother?

While you do not have to inform your employer that you are pregnant or breastfeeding, it is important (for you and your child’s health and safety protection) that you provide them with written notification as early as possible. Until your employer has received written notification from you, they are not obliged to take any action other than those resulting from the risk assessment for all their employees.

Additional Hazards

The risk assessment should consider whether there are any hazards that present an additional risk to the unborn child, the mother or the child receiving breast milk? The risks to expectant mothers and the unborn child may be different to those faced by the breastfeeding mother and child.

In some cases there are specific well-identified hazards, e.g. from a particular microorganism, from radiation or from a hazardous substance, alternatively the hazards may be of a more general nature e.g. heavy work, lifting or shift work. In the case of specific known hazards these should already have been identified in existing assessments and it should be a simple exercise of checking these assessments for any additional risks. Where the hazards are more general it is worth seeking advice from the Health and Safety Unit, who will advise on a case-by-case basis. The Occupational Health Unit can provide confidential advice to managers and staff.
Appendix 1 contains advice on specific hazards for new or expectant mothers.

The HSE guidance booklet, “New and Expectant Mothers at Work” HS(G)122 provides a useful list of hazards to consider.

**RISK MANAGEMENT**

The risk assessment should indicate what action needs to be taken to eliminate or reduce any additional risk. This should be discussed with the individual concerned and if necessary with advice from the Occupational Health Unit.

If the risk cannot be avoided altogether then the Head of College/Corporate Services will need to consider the following actions in consultation with Human Resources:

If there is a significant risk at work to the health and safety of a new or expectant mother, which goes beyond the level of risk found outside the workplace, then you must take the following actions to remove her from the risk:

1. Temporarily adjust her working conditions and/or hours of work; or if it is not reasonable to do so and would not avoid the risk:
2. Offer her suitable alternative work (at the same rate of pay) if available, or if that is not feasible you must:
3. Suspend her from work on paid leave for as long as necessary to protect her health and safety and that of her child.

**PROVISION OF REST FACILITIES**

The University has the legal duty to provide rest facilities for pregnant women or nursing mothers at work. These facilities should be conveniently situated in relation to sanitary facilities and, where necessary, include the facility to lie down.

Because of the layout of the campus and the unpredictability of the demand for these facilities at any one time it is not feasible to provide a separate dedicated room in each building. The University aims to provide rooms in key buildings on campus where staff affected can rest or express milk in privacy.

However in the majority of buildings the provision will need to be local and Heads of College, or the Head of Corporate Services will have the responsibility of providing somewhere suitable for their staff to rest or express milk (see below). For people with their own office there may not be a problem, for other staff, such as those working in a shared office or open plan, more planning will be required. It is always advisable to involve the member of staff concerned in finding an appropriate facility.

**It is therefore advisable that Heads of College, or the Head of Corporate Services plan ahead and identify a room that could be used for this purpose.**

The room need not be exclusively used as a rest room and there may be other uses for such a room that would be compatible with its use as a rest facility (e.g. a first-aid room, a room for use by visitors or an interview room).

**The Rest Facility**

The room need not be made over exclusively for this purpose but the pregnant or breast-feeding mother should have first call on it. In the case of staff with their own office there may be no need for additional facilities. It may be possible to make a room available at certain times or to use a room that is temporarily unoccupied.

Any rooms made available for this purpose should be kept clean, should be able to afford privacy and should allow for the occupant to remain undisturbed (e.g. lockable door or sign). It should be as near to sanitary conveniences as possible and a chair should be provided. If during pregnancy it is necessary to provide somewhere to lie down then advice should be sought from the Estate Management Office (from the appropriate Estate Coordinator) or the Occupational Health Unit.

**Additional facilities when expressing milk**

When expressing milk it is important to have a hygienic area that is kept clean. Provision may need to be made for a small fridge and ideally a wash-hand basin should be provided.
ANNEX 1: ADVICE ON SPECIFIC HAZARDS AND CONTROL MEASURES
FOR NEW OR EXPECTANT MOTHERS

WORKING CONDITIONS

1. USE OF DISPLAY SCREEN EQUIPMENT

The potential risks to be considered are:

**Posture**
In the later 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.

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

**Control the Risk**
A DSE assessment should be carried out, using the University checklist, for all expectant mothers to help identify any postural or work station issues. The assessment should be reviewed at regular intervals as the pregnancy progresses.

Any member of staff who is concerned about working with DSE during pregnancy can seek advice from the Occupational Health Unit.

2. MANUAL HANDLING

**Potential Risks**
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.

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.

**Control of Risk**
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 supervisor, 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.

If there are any particular difficulties connected with manual handling advice can be sought from the Occupational Health Unit.
3. THERMAL COMFORT

**Potential Risks**
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.

**Control of Risk**
Since there are no activities with extremes of temperatures at the University then the normal heating/cooling provisions apply. Consideration should be given to new or expectant mothers where their role involves working outdoors, with provision of suitable clothing, rest breaks or change of duties.

4. MOVEMENT AND WORKLOAD

**Potential Risks**
Expectant mothers are more prone to fatigue from standing for periods of time and other physical work.

Standing for long periods may lead to dizziness, faintness and fatigue. Conversely sitting for long periods carries the risk of backache, thrombosis or embolism. Backache may also be associated with prolonged work, poor working posture and excessive movement.

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

**Control of Risk**
Expectant mothers should avoid long periods spent handling loads, or standing or sitting without regular gentle exercise or movement to maintain healthy circulation.

Provision should be made to alternate between standing and sitting. If this is not possible, longer or more frequent rest breaks will help to avoid or reduce fatigue.

To reduce the risk of physical or mental fatigue supervisors should ensure 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.
ANNEX 1: ADVICE ON SPECIFIC HAZARDS AND CONTROL MEASURES FOR NEW OR EXPECTANT MOTHERS

PHYSICAL AGENTS

5. IONISING RADIATION

**Potential Risks**
Exposure can either be from the external radiation hazard or internal contamination where ingested radionuclides can be transferred across the placenta. 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. However, this dose is relatively high compared to the work carried out at the University and would only apply to any female member of staff who has been designated as a “classified radiation worker”. Radiation workers, who are monitored with thermoluminescent dosemeters (TLDs) tend to have no exposure recorded above the TLD threshold reading and their effective dose is less than 1 mSv per annum.

External doses can easily be assessed for but not so for internal exposures. Calculated dose coefficients (Sv/Bq) for the embryo, foetus and newborn child as a result of the intake of a select number of radionuclides by the mother have been calculated and can be used for the estimation of potential internal exposure. Generally internal doses are not an issue due to the relatively low radionuclide activities used.

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.

**Control of Risk**
The main requirements for the radiation protection of persons resulting from work activities are the Ionising Radiations Regulations 1999 (IRR ‘99); Work with Ionising Radiation, L121 (HSE Books) sets out the regulations, approved code of practice and guidance.

When an employer of a female worker is notified that that worker is pregnant, then the workload for that member must be such that the dose limit to the foetus will not exceed 1 mSv for the remainder of the pregnancy. 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.

Bearing in mind the psychological concerns a pregnant mother would inevitably feel during her pregnancy for the health of her child, it may be appropriate to either redeploy or change the working conditions such that exposure to any radiation is limited during her pregnancy. Another approach can be to avoid against any higher risk activities involving radioactivity e.g. the most likely internal exposure is during and after a significant spillage and subsequent clean-up.

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.

Further information is available in the HSE document [INDG334 ‘Working safely with ionising radiation: guidelines for expectant or breastfeeding mothers’](https://www.hse.gov.uk/). Any member of staff who is concerned about working with radiation can either consult with the University’s Radiation Protection Adviser or Occupational Health Unit.
6. NON-IONISING RADIATION

**Potential Risks**
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.

The embryo and foetus may be particularly sensitive to RF-induced heating since heat loss pathways that are available to adult mammals are denied to the foetus. Heat has been shown to be teratogenic in various animal species, including primates, and has been associated with miscarriages, as well as with central nervous system and facial defects in children whose mothers developed moderate to severe hyperthermia, especially during the first trimester of pregnancy.

**Control of Risk**
Exposure to electric and magnetic fields should not exceed the restrictions on human exposure published by the International Commission on Non-Ionising Radiation Protection (ICNIRP) which have been adopted in the UK by the Health Protection Agency/Radiation Division (formerly known as the National Radiological Protection Board).

Magnetic and Electric fields are capable of being measured and compared to the current guidelines published.

Any member of staff who is concerned can either consult with the Occupational Health Unit, or with the University’s Health and Safety Unit.
ANNEX 1: ADVICE ON SPECIFIC HAZARDS AND CONTROL MEASURES FOR NEW OR EXPECTANT MOTHERS

CHEMICAL AND BIOLOGICAL AGENTS

7. CHEMICAL AGENTS

Potential Risks
Substances carrying the following Risk Phrases or Hazard Statements potentially pose a risk.

- 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

Hazard Statements:
- H351: Suspected of causing cancer
- H350: May cause cancer
- H340: May cause genetic defects
- H350i: May cause cancer by inhalation
- H360: May damage fertility or the unborn child
- H361: Suspected of damaging fertility or the unborn child
- H362: May cause harm to breast fed children

The actual risk to health of these substances can only be determined following a Chemical Hazard and Risk Assessment—i.e. although the substances 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.

Control of Risk
Since these substances have the potential to cause heritable genetic damage or harm to the unborn child, the Chemical Hazard and Risk Assessment in the case of women who are pregnant or who have recently given birth should address these risks.

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 safer alternatives are possible.

- **Limitation of Exposure** – limiting extent of use but at same time readdressing control measures
  - Engineering controls: fume cupboards, LEV or enclosures
  - Personal Protective Equipment (PPE) included as a last resort: consideration of using a higher standard
ANNEX 1: ADVICE ON SPECIFIC HAZARDS AND CONTROL MEASURES FOR NEW OR EXPECTANT MOTHERS

CHEMICAL AND BIOLOGICAL AGENTS

8. BIOLOGICAL AGENTS

*Potential Risks*
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.

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.

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

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.

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).

*Control of Risk*
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.

The control measures 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.
9. LEAD AND ITS DERIVATIVES

**Potential Risks**
Exposure to high levels of lead during pregnancy can cause miscarriage and stillbirth. Other pregnancy problems such as low birth weight and premature delivery can also occur.

Foetal lead exposure can have an adverse effect on neurodevelopment, with an effect that may be most pronounced during the first trimester.

Lead can be transferred from the mother’s blood to breast milk, therefore causing a potential risk to the newborn baby, if the mother was highly exposed before and during pregnancy.

H.Hu et al (2006), Environmental Health, 114(11), 1730-1735
Health and Safety Executive HSG 122.

**Control of Risk**
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.

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 Chemical Hazard and Risk Assessment should be carried out for all processes involving lead and its derivatives. If the assessment raises concern about significant exposure, then the Health and Safety Unit can be contacted for further advice.

10. MERCURY AND ITS DERIVATIVES

**Potential Risks**
During pregnancy, mercury passes readily through the placenta. 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.

Organic mercury can be transferred from the mother’s blood to breast milk, therefore causing a potential risk to the newborn baby, if the mother was highly exposed before and during pregnancy.

Organisation of Teratology Information Specialists
Canadian Centre for Occupational Health and Safety – Mercury fact sheet
Health and Safety Executive HSG 122.

**Control of Risk**
A Chemical Hazard and Risk Assessment should be carried out for all processes involving lead and its derivatives. If the assessment raises concern about significant exposure, then the Health and Safety Unit can be contacted for further advice.

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

Potential Risks
Exposure to cytotoxic drugs during pregnancy can result in abortion and birth defects. 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 skin.


Control of Risk
Exposure should be reduced to as low a level as is reasonably practicable and a Chemical Hazard and Risk Assessment should look particularly at preparation of the drug for use, administration of the drug, and disposal of waste (chemical and human).

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

12. CARBON MONOXIDE

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

Acute CO poisoning during pregnancy is comparatively uncommon, yet can result in foetal death and functional alterations or anatomical malformations in survivors.

If a pregnant woman is exposed to dangerous levels of carbon monoxide, the birth weight of her baby may be decreased, and it is possible that the child may develop behavioural problems.

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

Health Protection Agency, Carbon Monoxide fact sheet
Health and Safety Executive HSG122

Control of Risk
A Chemical Hazard and 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

**Potential Risks**
A variety of chemicals can be absorbed directly through the skin and pose a risk of systemic toxicity. These substances are identified in the HSE’s EH40/2005 Workplace Exposure Limits document by the annotation ‘Sk’.

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

**Control of Risk**
A Chemical Hazard and Risk Assessment should address the control measures and in the light of someone indicating they are pregnant, the 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.
Appendix 2: Risk Assessment Pro forma

**School:**

**Research Group:**

**Name of mother/expectant mother:**

Duration of pregnancy at time of risk assessment:

Due date:

Mother/expectant mother's signature:  Date:

Supervisor or assessor's signature:  Date:

**Biological hazards - Is expectant/new mother routinely exposed to biological agents (viruses, bacteria, animals etc.)?**

YES / NO

Is expectant mother exposed to Biological agents known to cause abortion of the unborn child, or physical and neurological damage, such as Rubella, toxoplasma and cytomegalovirus.

YES / NO (If ‘YES’ please give details)

Are normal controls sufficient to protect mother or unborn/newborn child from any increased risk?  YES / NO (If ‘YES’ please give details)

If “no” give details of action to be taken to reduce or remove risk:

**Chemical hazards - Is expectant/new mother routinely exposed to hazardous chemical agents (toxins, mutagens, teratogens etc)?**

YES / NO

If “yes” list any chemicals used that have the following associated risk phrases/hazard statements:

<table>
<thead>
<tr>
<th>Risk Phrase/ Hazard Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R40: possible risk or irreversible effects</td>
<td>H351: Suspected of causing cancer</td>
</tr>
<tr>
<td>R45: may cause cancer</td>
<td>H350: May cause cancer</td>
</tr>
<tr>
<td>R46: may cause heritable genetic damage</td>
<td>H340: May cause genetic defects</td>
</tr>
<tr>
<td>R49: may cause cancer by inhalation</td>
<td>H350i: May cause cancer by inhalation</td>
</tr>
<tr>
<td>R61: may cause harm to the unborn child</td>
<td>H360: May damage fertility or the unborn child</td>
</tr>
<tr>
<td>R63: possible risk of harm to the unborn child</td>
<td>H361: Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>R64: may cause harm to breast-fed babies</td>
<td>H362: May cause harm to breast fed children</td>
</tr>
</tbody>
</table>

Are normal controls sufficient to protect mother or unborn/newborn child from any increased risk?  YES / NO (If ‘YES’ please give details)
If "no" give details of action to be taken to reduce or remove risk:

| **RADIOLOGICAL HAZARDS** - Is expectant/new mother a radiation worker? | YES / NO |
| If yes the local Radiation Protection Supervisor must be informed and advice sought regarding work | |
| If yes give details and action to be taken to reduce risk: | |

| **MANUAL HANDLING** – Is the expectant mother involved in manual handling tasks? e.g. moving heavy/awkward loads | YES / NO |
| If yes give details and action to be taken to reduce risk: | |

| **ERGONOMICS** - Are there any ergonomic issues that might cause increased risk to mother or unborn child? e.g. Repetitive movements, bending or awkward postures. Does their work involve prolonged periods of sitting or standing? | YES / NO |
| If yes give details and action to be taken to reduce risk: | |

| **LONE/OUT OF HOURS WORKING** – Does the expectant mother work outside of normal hours? In the later stages of pregnancy women are more likely to need urgent medical attention. | YES / NO |
| If yes give details and action to be taken to reduce risk: | |

| **DISPLAY SCREEN EQUIPMENT (DSE)** – Is the expectant mother classified as a user? | YES / NO |
| If ‘YES’ a DSE assessment should be conducted and reviewed regularly. | |

| **ADDITIONAL HAZARDS** - Travelling in the course of work, working at height, working in extremes of temperature, stress/fatigue and emergency procedures- e.g. do they need assistance exiting the building? | Please give details and actions to be taken to reduce risk: |
| | |