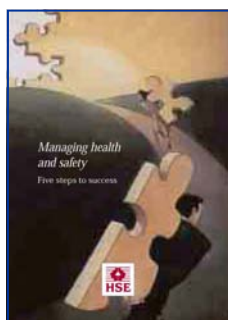


Inside this issue:

Review of Health and Safety	1
Back Pain	2
Safety Department News	3
Rectors Award for Health and Safety	3
Blood-borne Infections	4
Changes to Genetic Modification Compendium of Guidance	4
OH Department News	5
Calling all Peptide Synthesizers	5
Accidents	6
FAQ—Write-up Areas in Laboratories	7
Eagleson Colloquium	7
Training	8

Review of Health and Safety



Many of you will be aware that a review of health and safety management at the College was undertaken earlier this year. The purpose of the review was to confirm whether the College's health and safety systems were fit for purpose, in line with best practice and being followed. The review was undertaken by Health and Safety Technology and Management Limited (HASTAM), a leading consultancy on health and safety management, and was based on the Health and Safety Executive publication HSG65 'Successful health and safety management'.

The final report, based on examination of College policies, guidance notes, codes of practice, accident records, training courses and interviews with over 50 members of staff from all areas and levels within the College, has now been received. The report highlighted several positive areas, such as the College having a responsible and committed approach to health and safety in a high-hazard workplace, and acknowledged that the management of biological safety and the current arrangements in place for this were considered to be of "international class-leading standard".

Overall, the report confirmed that the College's arrangements are satisfactory but made recommendations where improvement can be made. The essential message was that the safety culture at the

College could be improved by better promotion and leadership of health and safety and by improving communication of safety issues at all levels.

Among the key recommendations were:

- Including health and safety responsibilities in all job descriptions and identifying any qualifications needed to undertake the role.
- Including health and safety as a standing item on the agendas of all major committees.
- Providing mandatory training on health and safety for all Heads of Department to make them aware of their legal responsibilities and their role in developing a safety culture.
- Improving risk assessments by improving the methodology and competency of those conducting them.

In order to deal with the report's recommendations the College Secretary has established a working group including representatives from each faculty and from support services. The objective of the working group is to develop a new safety management system for the College, which will incorporate a new College Policy on Health and Safety. The Safety Department will take the main role in developing the new system during the coming year with the intention of implementing the new approach from 2007-08.

Further information on HASTAM may be found on their website:

<http://www.hastam.co.uk/>

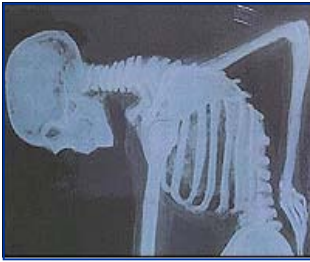
2006 Autumn / Winter Newsletter Editions

We apologise for the cancellation of the scheduled September edition—this was due to alternative priorities and difficulties arising from staff shortages and office relocation. As a result, the decision was taken to publish the December edition one month earlier than scheduled. We intend to return to the established quarterly publications again in 2007.

All About Back Pain

Claire O'Brien , Senior Occupational Health Adviser

Understanding back pain



Most back pain is caused by strains and minor injury rather than serious traumatic injury, and is often called 'simple back pain'. Although the pain often comes suddenly and can be triggered by a particular movement, the causes

may have been building for some time.

Reducing your risk

Some of the commonest causes of stress and strain on the spine are:

- Slouching in chairs
- Driving in hunched positions
- Standing badly
- Lifting incorrectly
- Sleeping on sagging mattresses
- Overweight
- Being unfit and generally overdoing it

Inactivity and the wrong sort of movement are usually at the root of 'simple back pain'. Inactivity makes the muscles go slack, and become unable to support the back properly, leaving it more vulnerable to damage when certain movements pull too much on one area of your back. Often taking up strenuous activity e.g. gardening after a long bout of inactivity can result in back pain. Usually the problem can be due to a strain or tear to the muscles, tendons or ligaments around the lower spine. In turn, this can produce painful muscle tension and spasm. Even a minor problem can cause a lot of pain when you stand, bend or move around. Pain can sometimes come on suddenly or gradually, but it usually only lasts a few days or a week. Simple back pain usually resolves without intervention from a doctor or physiotherapist. If the pain does not begin to improve or lasts more than a week, it is important to see a doctor to ascertain the cause of the problem.

Diagnosis

It's often difficult for doctors to find the exact cause of pain caused by muscle or ligament damage in the lumbar area. That is why it is often called non-specific low back pain. In many cases, the pain starts a day or two after an injury occurs, or the cause has been building up gradually over many years, which makes diagnosis even more difficult.

Disc problems

People who have a back problem often talk about having a 'slipped disc'. But disc problems are actually not very common - and never happen because the

disc has 'slipped'. It has usually torn and become distorted ('prolapsed' or 'herniated') so that it presses against sensitive nerves from the spinal cord.

Sciatica

Sciatica is the name given to pains running down the leg because there is pressure on the sciatic nerve where it emerges from the spinal cord most often caused by localised swelling but can also be attributed to a prolapsed disc.

Understanding pain

Pain is a message sent along the nerves to tell the brain that something is damaging the body. The brain then sends a message to the muscles or organ to take action - for example, it tells the hand to get away from what's burning it.



Treatment

Most people have acute pain and common painkillers usually help if taken **regularly** and according to instructions. When taking pain killers it is important to be gently active to help the muscles recover from spasm. Walking in trainers at a gentle pace should not cause any harm. and spending long periods of time inactively "resting" can usually be counterproductive. Once you have recovered from a bout of simple back pain it is important to focus on strengthening abdominal and lumbar muscles to prevent recurrence.

Chronic pain is more difficult than acute pain to help and sometimes does not respond to treatments such as over-the-counter painkillers and physiotherapy alone. People with chronic pain often need specialist advice and support - and are sometimes referred by doctors and physiotherapists to pain clinics.

Keeping fit

Your body must stay active to be healthy. If your muscles, bones and tendons fall into disuse they will start to grumble and groan - especially in an area as complex as the back. So keep them moving. Gentle exercise can build strong back and stomach muscles to support your spine and maintain flexibility. Walking or cycling is easy to incorporate into your daily lifestyle. Swimming is particularly good for backs, because it strengthens your muscles while supporting your body with water - but some strokes may not suit you, so try and get professional advice.



Improve your health, fitness and wellbeing on a tax free bike. For more information see:
<http://www3.imperial.ac.uk/occhealth/guidanceandadvice/cycletoworkscheme> or contact Dougie Mason on:
douglas.mason@imperial.ac.uk

Safety Department News



Office Relocation The Safety Department relocated from 8 Princes Gardens to Level 5 Sheffield Building at the end of August. The new office is located in the south east corner of Level 5 and may be accessed via the east lift or staircase for staff with Sheffield swipe card access. Those staff or visitors who do not have swipe card access should enter via the main Support Services reception at the west end of Level 5. Full directions are given on the Safety Department web pages:

<http://www3.imperial.ac.uk/safety/contacts>

At the time of going to print, the training room in 8 Princes Gardens is still in use for some safety training courses. Please refer to the safety training web pages for details of course locations.

Staff Changes

Jon Fear joined the Safety Department as Assistant Radiation Protection Officer at the beginning of August. Jon formerly worked as Chief Technician at Wye Campus and more recently as Deputy DSO for the Division of Biomedical Sciences based in the Sir Alexander Fleming Building at South Kensington.



CMS Website



The Safety Department website has now transferred from the old Spectrum style layout to the new Content Management System (CMS) setup. Visitors will be fa-

miliar with the page style from the other existing College CMS sites and the basic structure of the site has remained similar to its predecessor. However, it is worth noting some points:

- The training pages can now be accessed via a primary button in the top bar.
- A new 'Approvals' section has been added. This is for information on types of work requiring prior approval and will be developed over time.
- A new 'Other Resources' section has been added to facilitate a range of features such as posters, notices and alerts that do not fit easily into the other established sections.
- With regards to terminology, the site should be referenced as the 'Safety website' or 'Safety Department website' when quoted in publications, presentations or on other departmental web pages. The term 'Spectrum' should no longer be used with reference to this site.
- Departments and Divisions who had links to the old site should check and amend links accordingly to ensure that they feed through to the relevant pages on the new site.

Rectors Award for Health and Safety

The recent external review of health and safety within the College (page 1) identified the Rector's Award for Health and Safety as an example of best practice in the context of College operations. The report recommended that it should 'be leveraged for maximum benefit' and that marketing and awareness of the existence of the award would benefit from improvement. As a result, the format of the award for 2007 is currently under review and further information, including closing dates for nominations, will appear on the Human Resources web pages in due course. There will be additional links from the Safety Department website to these pages.



Ian Hackford, Division of Medicine Safety Officer, receives the 2006 award from the Rector in April

Blood-borne Infections

Anton de Paiva, College Biological Safety Officer

Accidental exposure to human blood or other tissues or body fluids may lead to infection with pathogens such as HIV, Hepatitis B and Hepatitis C. New guidance from the Safety Department and Occupational Health aims to summarise the risks associated and the precautions that should be implemented when handling such material.

The likelihood that any particular human tissue or body fluid is infected will depend on both the tissue type and its source. In practice it is usually very difficult (or impossible) to unequivocally determine the infectious status of a sample without screening and in 1987, the Centers for Disease Control (CDC—a USA government department) published their recommendations that all human blood should be treated as if infectious, unless known through screening to be non-infectious. These recommendations are known as Universal Precautions and they form the basis for the standards enforced by Health and Safety legislation in the UK and must be adhered to in Imperial College laboratories.

Universal precautions include:

1. Robust containment of samples.
2. Gloves must be worn when handling the samples. Hands

must be washed after removing the gloves.

3. Use of a safety cabinet if droplets or aerosols could be produced.
4. Use of sharps (including needles, glass pipettes or capillary tubes) must be limited to situations where there is no alternative. If sharps must be used then:
 - a. Needles must not be recapped or otherwise manipulated by hand.
 - b. Conventional needles must be replaced with safer alternatives where possible (e.g. blunt canulas or needle safety devices).
 - c. They must be disposed of immediately after use in sharps bins.
 - d. Users must be adequately trained in their safe use.
5. Decontamination of surfaces with appropriate disinfectants.
6. Contaminated materials must be decontaminated before reuse or disposed of correctly via clinical waste.
7. Washing of hands after removing gloves.
8. Exclusion of all workers with exudative lesions or excema.
9. Hepatitis B vaccination for all those handling human tissues.
10. Clear establishment of emergency procedures to be followed in the event of an exposure incident.

Further details are included in the guidance which will shortly be available on the Safety Department website along with a new risk assessment template.

Changes to GM Compendium of Guidance

Una Sahye, College GM Safety Officer

The Scientific Advisory Committee for Genetic Modification (SACGM) has recently drafted and updated the current ACGM Compendium of Guidance to incorporate new technological developments and legislative changes.

The SACGM has replaced the ACGM as the new advisory body to the Health and Safety Executive (HSE) on matters relating to the risks posed to human health and the environment by working with genetically modified organisms (GMOs) in containment.

The Compendium of Guidance covers work with genetically modified micro organisms (GMMs) and transgenic animals and plants. It is available at:

<http://www.hse.gov.uk/biosafety/gmo/guidance.htm>

The six sections of the guidance are outlined below:

Part 1

This section details general health and safety matters including management responsibilities. In addition, other legislation relevant to the *Genetically Modified Organisms Contained Use Regulations* and to work with GMOs is covered.

Part 2

General risk assessment advice for work with GMMs is covered. Specific guidance is provided relating to commonly used GM technologies. These include considerations to be taken into account when carrying out routine

cloning work using attenuated *E.coli*. Advice relating to working with viral vectors has been updated in this section. Example risk assessments are available for reference.

Part 3

Containment measures both for laboratory work and those required for animal studies involving GMMs are discussed in this section. Specific guidance on GM waste inactivation, fumigation and new guidance relating to the use of hydrogen peroxide sterilisation systems is provided.

Part 4

Guidance for carrying out risk assessments for work with GM plants is covered in this section.

Part 5

This section discusses risk assessments for work with GM animals and the appropriate containment and control measures required for this type of work.

Part 6

New guidance is provided relating to risk assessing work involving the handling of GMMs in a clinical setting.

Comments on the draft document from interested parties at Imperial have been requested by the College GM Safety Officer for submission to SACGM. The closing date for responses was 25 October.

Occupation Health Department News

Staff Changes

Occupational Health Adviser

Lucy Wakefield joined us in September as our new Occupational Adviser. Lucy previously worked within a NHS Occupational Health department and has also worked in various occupational health settings including retail and industrial sectors. Her role at Imperial will include the delivery of occupational health services including health advice, vaccinations, delivery of health and safety training and provision of support and guidance relating to health at work.



Occupational Health Manager

Our new Occupational Health Manager, Melanie Phillips, joined us in September. Melanie has spent many years working in Occupational Health/Health and Safety as a practitioner and manager in a variety of organisations, most latterly as a specialist inspector with the Health and Safety Executive. Her role at Imperial is to ensure the smooth running of the Colleges' Occupational Health Services on all its' campuses whilst being involved in service development and providing occupational health advice. She looks forward to meeting and working with staff and students across the College.



Office Relocation

The Occupational Health Department will be relocating, temporarily, whilst the Sherfield Building undergoes building work. The new location will be at the rear of the Ace extension and we will be moving on the 13th of November. The department will be closed on the 10th and 13th of November to allow for the move. The address for the temporary location is as follows:



Occupational Health Service
Imperial College London (Rear of Ace Extension)
South Kensington
London
SW7 2AZ

All telephone numbers and email address will remain the same.

For further information in regard to the move see:
<http://www3.imperial.ac.uk/OCCHEALTH>
which includes a map of our temporary location.

And finally.....

Occupational Health would like to thank all of those who took part in the manual handling survey. A report has since been distributed and we are currently working on a revised Policy and the production of relevant guidance information to accompany the Policy and COP. If you did not receive a copy of the report and you wish to do so, then contact Dougie Mason on extension 49364 or douglas.mason@imperial.ac.uk.

Calling all Peptide Synthesizers

Dr Alan Swann, Director of Occupational Health



If you use Uronium-based activators or similar reagents, then the Occupational Health Service would like to hear from you. A recent journal article (Occupational Medicine

2006;56;430-433) described a laboratory worker at a university in Finland suffering a severe allergic reaction-anaphylaxis- when preparing solutions of HBTU for peptide synthesis. We are aware of one researcher at Imperial who has developed allergic problems whilst

carrying out similar work here and want to check out the possibility that others may be similarly affected.

If you use HBTU or similar reagents such as HATA, TBTU, HCTU, HOBt, HOAt, PybROP or PyROP in your laboratory, please contact the College Occupational Health Physician, a.swann@imperial.ac.uk. You will then be sent a questionnaire to gather more information about what you use, how you use it and whether anyone in your laboratory has ever suffered allergic symptoms.

Dr Alan Swann would also like to hear from you even if you haven't had a problem and is interested in finding out about safe working practices when using these reagents, as well as identifying anyone who may have a problem.

Accidents

Rohini Gowtham, Accident Investigation Officer

Asbestos Accidents



Tripping over a floor tile, falling through a corrugated roof, dropping a flower pot on your foot – all could be considered as asbestos related accidents because fibres have historically been used in the manufacture of these

and thousands of other items. But without question the most serious and well known current health effect is related to breathing asbestos fibre, with the associated risk of developing mesothelioma, a cancer of the lung lining.

Prevention please - there is no cure.

Mesothelioma is fatal, and the likelihood of it developing is around 50 times greater if the individual is a smoker. College procedures are designed to prevent exposure so that no-one is in a situation where they breathe in asbestos fibres. The most obvious precaution is to check before any material is disturbed or worked on—preventing the risk at source.

What happens when exposure does occur?

Very rarely an accident may occur where fibres become airborne – for example when pipe insulation or asbestos based equipment gets damaged. What happens next?

- The person discovering the situation should minimise any further disturbance to the material.
- If possible, the material should be covered with polythene or some other barrier.
- The area should be secured to prevent others entering.
- Estates Helpdesk should be notified—they will, in turn, notify the Asbestos Manager.
- The Asbestos Manager will carry out an assessment to include:
 - * Names of individuals potentially exposed and the estimated exposure times.
 - * Type(s) of asbestos present.
 - * Levels of airborne fibre.
- If the control limits laid down in the *Control of Asbestos at Work Regulations* have been exceeded, the Safety Department will report the exposures in accordance with *RIDDOR*.
- The results of the assessment will be forwarded to the Occupational Health Department who will:
 - * Make a further assessment of health risk.
 - * Offer to discuss any concerns with staff exposed.
 - * Ensure that the health record is retained for the statutory 40 years.
 - * Contact the exposed person(s) GP in the event of the control limits being exceeded.

The College Asbestos Management Plan (AMP) may be found at the following link:

<http://www3.imperial.ac.uk/portal/pls/portal/portal/portal/docs/1/50386.PDF>

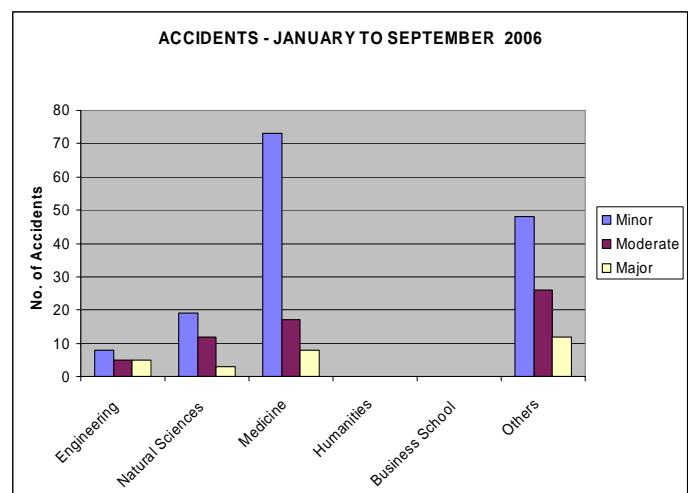
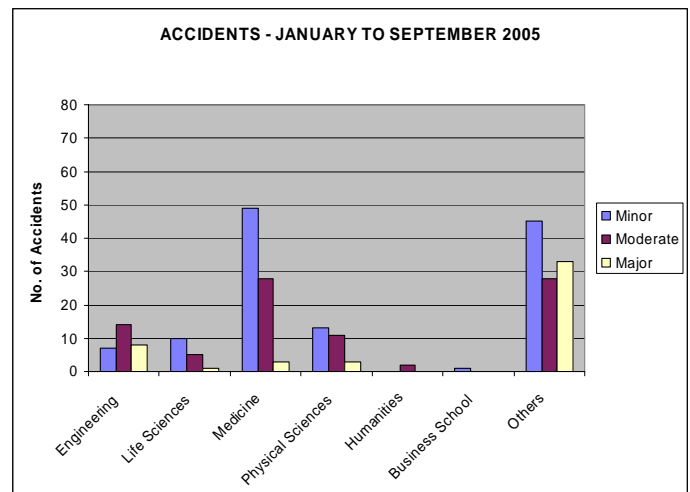
Article provided by Sue Burbeck, Asbestos Manager

Accident Statistics

	Jan-Sep 2005	Jan-Sep 2006
Total incidents reported to the Safety Department	261	236
Total incidents reported to the Health and Safety Executive in accordance with RIDDOR 1995	16	7

Comparison Graphs

January to September 2005 vs. 2006



Accident rating:

Minor: No treatment required / First Aid.

Moderate: Visit to Occupational Health / GP / Health Centre or A&E.

Major: HSE reportable / Lost time (up to 3 days) / member of public taken to hospital for treatment.

Frequently Asked Question:

Is it acceptable to have a write-up area in a laboratory?

Regulation 7 of the *Control of Substances Hazardous to Health Regulations (COSHH)* states:

'Every employer shall ensure that the exposure of his employees to substances hazardous to health is either prevented, or where this is not reasonably practicable, adequately controlled'

The supporting guidance to Regulation 7 lists specific control measures to be employed, which include reducing to the minimum the number of employees exposed and excluding non-essential employees from areas where hazardous substances are handled. Therefore, we can draw the following conclusions:

- Staff should not be exposed to laboratory hazards at times when they do not have to be present in the laboratory.
- Office based tasks that do not directly require the individual to be present in the laboratory e.g. report writing should be carried out elsewhere. It is accepted that a degree of written work must be carried out at the laboratory bench e.g. making notes in experiment books and as such, this would be excluded from the definition of office based tasks.

At Imperial a precedent was set in 2001 when the Health and Safety Executive investigated a reportable accident in one of the Faculty of Medicine Divisions. The inspectors formally expressed their dissatisfaction at the presence of 'clean' write-up areas in the biological Containment Level 2 laboratory where the accident took place. They subsequently requested that the area in question should cease to function as a write-up area and that greater effort should be applied to resolve similar situations that may exist elsewhere in the College.

In recent years, every effort has been made to ensure that separate write-up areas are an inclusive design feature where new building projects and refurbishments have taken place. It is recognised however, that there are still laboratories in existence within the College that do not meet this standard and that this is the case particularly where some of the older laboratories are concerned. Where this is so, the Department should ensure that the matter is subject to risk assessment and that, where necessary, suitable management controls are put in place to minimise risk. In addition to assisting with short term risk control, any assessment should identify areas for priority consideration if and when funds become available for redevelopment.

Eagleson Colloquium Tours Imperial College Laboratories



During the recent Eagleson Institute International Colloquium on the design of high end (Containment Level 3 and 4) laboratories, a tour was provided of CL3 labs and CBS facilities at Imperial. Many of the design and operational features of these facilities were received with interest by 45 of the course delegates. Delegates included representatives from CDC, the US Army and the architects and engineers responsible for such facilities as Building 18 at CDC (this houses the largest area of Level 3 and 4 laboratories in the world today).



A satirical view of a work task (courtesy of University Health & Safety Advisers Network)



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are First

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If you have any comments or suggestions for inclusion in future Newsletters please contact the editors:

Dougie Mason
Occupational Health
douglas.mason@imperial.ac.uk

or

John Luke
Safety Department
j.luke@imperial.ac.uk

Training

Christine Wright, Assistant Safety Director

Various forms of induction have taken place in the College for many years both centrally and locally.

A fresh opportunity is now being provided for all staff and postgraduate students new to the College. Local induction will continue to be offered for familiarisation of specific organisational arrangements and whom to contact about what. Additionally, the one day Chartered Institute of Environmental Health's Level 2 Certificate in Health and Safety in the Workplace will run at frequent intervals at no charge. Topics covered include:

- Health and safety law.
- Workplace health, safety and welfare.
- Risk assessment.
- Accident prevention.
- Work equipment.
- Electricity.
- Fire safety.
- Occupational health.
- Substances hazardous to health.
- Noise.
- Manual handling.

- Personal protective equipment.
- First aid.
- Competence test.

The courses will be given either a laboratory or workshop or administrative orientation, i.e. relevant to your work. Personal invitations will be issued to staff by the Safety Department and through Divisional and Departmental Safety Officers to post-graduates. For your own health and safety, personal development and to comply with legislative requirements, attendance is likely to become mandatory.



Photograph of a recent breathing apparatus practical class.....probably crying out for the addition of a caption!



Biosafety Foundation Training

Foundation level training in Biological Safety is now to be provided regularly at all the major campuses. The training is aimed at staff and postgraduate students new to research in biological laboratories. The course will cover general principles of biosafety, hazardous chemicals, gases and cryogenics in the biological laboratory and the safe handling of genetically-modified organisms. Further information, dates and venues, as well as on-line booking is available on the Safety Department website.

Training Schedule & Events

Below is a selection of forthcoming courses. The complete list for this term is too comprehensive to include here—please consult the training programme link for the entire range:

<https://www3.imperial.ac.uk/safety/training/coursesindex.htm>

November 2006

Carriage of Infectious Substances (SK)	14th / 15th
Computer Health & Safety for Users and Assessors (SK) (Occ. Health)	14th
First Aid Lifesaver Refresher (SK)	16th
Introduction to Laser Safety (SK)	22nd
Asbestos Awareness (SK)	27th
Health & Safety Responsibilities for Academic Supervisors (SK)	29th

December 2006

Risk Assessment (SK)	5th
Safety, Health & Radiation Users Group (SHRUG) (SK)	6th
Radiation Protection (SK)	6th
CIEH: Level 2 Award in Health & Safety (Hammersmith)	7th
Safety Induction (SK)	11th
First Aid Lifesavers (Hammersmith)	12th