Heard the one about the woman who slipped on a grape? She broke a major bone in her leg and will always need a walking stick. Geddit? Thought not. It's not the slightest bit funny - so why are slips and trips still looked upon as a bit of a joke?

Far from being funny, slip and trip accidents are a very serious problem, particularly in the health services sector where they account for 48% of all reported major injuries. They also account for three times more major injuries than manual handling and assault/violence.

In fact slips and trips are the most common cause of major injuries at work generally. They occur in almost all workplaces with 95% of major slips resulting in broken bones. They can also be the initial cause of a range of other accident types, such as falls from height.

The costs of slips and trips are enormous. It was estimated in 2003 that they cost employers over £500 m and society over £800 m every year.

Slips and trips are the most common form of major injury affecting nurses, care assistants, assistant nurses, housekeeper/caretakers, ambulance staff and cleaner/domestic staff.

The main causes behind such accidents are:

- slipping on a surface that is wet or contaminated with another substance;
- tripping over an obstruction;
- slipping or tripping on surfaces such as steps, ramps, pavements and roads;
- tripping over an uneven floor surface.

And it's not just workers who slip up, members of the public (which includes patients) are also at risk, with almost 62% of major injuries being caused by slips and trips.

Unfortunately, many employers regard slips and trips as being outside their control, inevitable or the employee’s fault.

But they are wrong. The solutions to slip and trip hazards are often simple and cost-effective. For example, from 1990 a concerted effort was made to reduce slips and trips accidents in food-processing industries. The result was a 16% reduction overall, with a 19% reduction in major injuries since 1996.

A similar effort now needs to be made in the health services – both to reduce the impact upon staff, and to reduce the numbers of injuries to patients and visitors.

Further information on health services accident statistics can be found by visiting the website at www.hse.gov.uk/statistics/pdf/rhshlth.pdf

Top tip: wear suitable footwear
Assessing the risk: a new tool to help

Slips Assessment Tool (SAT)

A frequently asked question when faced with the task of completing a risk assessment is ‘Where do I start?’.

For slip risks there is now an answer. HSE and HSL have developed a tool designed to help users risk-assess slip hazards in their workplace. The SAT (Slip Assessment Tool) is made up of two parts: a computer programme - which can be downloaded from the HSE slips and trips website - and a roughness meter.

When used together, they will allow you to produce a quantitative estimate of the slip risk on different types of floor, in particular circumstances. Use of the SAT is not mandatory; it is simply an aid to help you assess slip risks in your workplace.

To use the tool, you will need to collect detailed information about the working area to be assessed, ie what material the floor is made from and what type of cleaning system is used. You will also need data such as type and amount of floor contaminants. For a true estimate you will also need to take a series of measurements of floor micro-roughness at a test location using a small hand-held roughness meter.

You can either record the data on a proforma and transfer it to a computer in your office or, if you have a laptop, you can preload it with SAT software and input the data directly for an immediate result. The end product is an estimate of what the slip risk is at that particular location.

A useful feature of the SAT is that you can change the variables you have entered so you can see what might lower the slip risk. For example, you may find that changing the variable on the cleaning method used may result in the slip risk decreasing.

Here are some examples of roughness meters. Using one of these with the computer programme will help give a true estimate of slip risks on different types of flooring.

Top tip: clean up spills immediately
Slips and trips: the facts and figures

Slips and trips are the most common cause of major injuries at work. They happen in almost all workplaces. In 95% of cases involving a major slip, the result is broken bones. Slips and trips can also be the initial causes for a range of other accident types such as falls from height.

On average, every year slip and trip accidents account for:

- 33% of all reported major injuries
- 20% of over-3-day injuries
- 2 fatalities a year
- 50% of all reported accidents to members of the public
- An annual bill of £512 million to employers
- A £133 million annual bill to the health service
- Incalculable human cost
Slip accidents cost hospital employee her foot

The decomposing leaves looked innocent enough but they ended up costing Alison, an Occupational Therapist her foot.

Normally the leaves would have been cleared daily but there was a staff shortage and so the job wasn’t done. Alison was climbing the concrete steps to the hospital entrance when she slipped and fell heavily onto her right knee.

The fall caused damage to the kneecap and she eventually needed surgery.

Alison returned to work but a few years later slipped again. Snow was falling when she entered the hospital building to start work. The doormat, which was used by up to 100 staff and patients, was too small for the area of tiled floor. It did not have the capacity to absorb all of the water being brought in by pedestrians. Some of the water was being transferred onto the dry floor.

After changing out of her boots, Alison left her office and slipped on the wet floor. Although someone had mopped it, they hadn’t dried it or placed barriers or warning signs.

Alison fell directly onto her right ankle, which broke and became contorted. It was placed in plaster but the plaster was taken off after only three weeks as the foot remained contorted.

Over the next few years she had to have 32 operations to try to save her foot. Eventually, she was told that she had dystonia caused by the accident and amputation was the only solution as her toes had by now lost their feeling and were turning black.

Alison said: ‘The effect of these slips has been horrendous. When I had my first accident I was an active, newly married 21-year-old. Until my second accident I remained working and enjoyed dancing, aerobics, and jogging, but now I spend a lot of my time in a wheelchair.

‘Although I have received compensation, I have lost my job and, due to ongoing problems, I’ll never work again. My husband has also lost his business because he now has to care for me. No amount of money can compensate or prepare me for what has happened.

‘By the way, one week after my fall, the floors in the unit were made non-slip.’

Isle of Wight NHS Trust reduces slip and trip accidents

The Isle of Wight NHS Trust has managed to reduce its slip and trip accident rates by a huge percentage. So, how did they do it?

It’s no big secret really. They mainly used a bit of common sense.

Simple but critical changes were made following risk assessments such as:

■ Ensuring warning signs were always used when floors were being washed.
■ Cleaning schedules were altered so as not to coincide with the peak activity times.
■ Thinking ahead and putting down grit in advance of any frost.
■ Cleaners were encouraged to warn nearby workers before they started any work which could create a slip or trip hazard.

Top tip: dry floors after cleaning
Over a three-year period, the Occupational Health and Safety Department improved the quality of the slips and trips risk assessments within the trust. At the same time, they also raised the staff’s general awareness of the issue. It was recognised that if re occurring incidents were to be prevented, incident recording systems needed to be modified as slips and trips were classed as one category although the causes were generally different.

Now the quality of the floor surfaces as well as the standard and timing of the cleaning is considered to present minimal risk of slipping and tripping to staff. This common sense approach has reaped great rewards as the Isle of Wight NHS Trust saw a 40% decrease in slip and trip reported incidents in the two-year period since 1999.

And the icing on the cake? They won an award in the HSE/Department of Health, Health Education Authority ‘Working Well Together’ Awards in 1999.

Case study 3

New floor required a different cleaning regime, but did anyone tell the cleaners?

Health and safety managers in a hospital decided that they needed to replace an old floor in a kitchen area following a number of slipping accidents. They opted for a new bespoke epoxy-based floor with specialist anti-slip surface.

The floor was laid but soon after the flooring supplier was asked to visit the site because they were having problems keeping the floor clean.

The supplier was surprised to find the floor was stained in various areas and generally didn’t look very clean. He discussed the problem with the cleaners who said that not only was the new floor extremely difficult to clean, but it was becoming slippery in parts and was damaging their mops.

The supplier discovered that the cleaning instructions for the new floor were not being followed. (Instead they were filed on a shelf in the health and safety manager’s office!) So the supplier asked for a stiff brush and a bucket of warm water with the appropriate amount of cleaning detergent and then set to work. He merely swilled the cleaning solution across the floor, leaned on his brush for a few moments and then brushed away the dirty liquid. The supplier explained that if the floor was not cleaned properly it would lose its slip-resistant properties.

The cleaners were amazed to see that almost immediately the stains were lifted from the surface and the original floor colour had returned.

All this could have been avoided if someone had bothered to tell the cleaners about the appropriate cleaning regime for the new floor!

Top tip: avoid trailing cables
Cutting costs can prove expensive

A Midlands business wanted to cut costs. They decided that their overnight cleaning operation could be provided for less cost if carried out first thing in the morning.

Following the change, a number of slipping accidents happened near to the entrance of the business.

It transpired that the entrance mats, which had been cleaned using a wet cleaning process, were still damp when people first entered the building. Unaware that the mats were damp, visitors would then step onto the smooth floor with wet shoes.

Research has shown that tiny amounts of liquid on some smooth floors can have a dramatic effect on the floor slipperiness.

The owner quickly reinstated the overnight cleaning regime so that floors and entrance mats were completely dry well before opening.

Doing more harm than good

It’s one of the easiest mistakes to make. You accidentally spill some coffee or water onto a smooth floor at work. Being a good colleague, you grab the mop and wipe it. But unless you go one further and dry the area, you’ve just created an even bigger hazard. By mopping the floor, you’ve increased the size of the wet area by several times. The damp floor will probably be almost indistinguishable in appearance from the rest of the area.

But it could take around seven minutes to dry and throughout that time the area will be extremely slippery.

During that period, it would be very difficult for anyone to realise they were walking from a safe to an unsafe surface.

Simply soaking up the spillage and drying the small area of floor with a paper towel would do the trick!

Top tip: light up your workplace
A ‘Tackling Slips in the Workplace’ seminar was recently held for the NHS in Scotland. A joint venture organised by the NHS Scotland Property and Environment Forum and the HSE, it was aimed at those with responsibilities for health and safety, procuring and maintaining flooring and arranging cleaning contracts.

The idea for a training event arose following the issue of Improvement Notices at a new PFI-build hospital. A health and safety inspector had issued the notices following an inspection which showed that one of the hospital wards presented a substantial slip risk when contaminated with liquid. Action needed to be taken if slip-related accidents were to be prevented.

It was decided to hold a joint slips event including lectures and workshops delivered by slip prevention specialists from within HSE and the Health and Safety Laboratory (HSL). The aim was to tackle issues such as identifying potentially slippery floors, buying suitable floors and minimising slip risks.

If you are interested in attending or holding such an event in your region during 2005 please email the HSE Health Services Team at healthservices@hse.gsi.gov.uk

Sharing experiences

Have you tackled a slip or trip problem in your workplace? If so, we would like you to share your experiences....

Learning from examples of how particular issues or problems have been dealt with in real life working situations is always an effective part of incident and injury prevention.

Slip and trip injury prevention is no different. Finding out what has worked well (or what has not worked) in comparable situations continues to be a useful and well-received part of the help and information that we try to provide.

If you have had success at tackling slips and trips or have a story to tell, then let us know what you have achieved and learned.

Email your examples to the HSE Health Services Team at healthservices@hse.gsi.gov.uk

NHS in Scotland has a slip and trip seminar

A supplement to the publication: HTM 61 Flooring is being written by HSE, in conjunction with NHS Estates. The supplement will take into account the new ideas, concepts and thinking in managing the risks of slips that flooring surfaces can address, such as micro-roughness specifications for slip-resistance, and the important role cleaning regimes can play. The supplement should be available in early 2005 and will be distributed via NHS Estates. A new HSE guidance sheet also gives advice on characterising a slip-resistant floor.

‘The assessment of pedestrian slip risk – the HSE approach’ can be downloaded from the HSE website (www.hse.gov.uk/slips/information.htm). If you need some advice, please contact your local HSE Office.

Top tip: keep areas clear - remove rubbish
What to get from where...

Information online

**HSE slips and trips website**
www.hse.gov.uk/slips/index.htm

Free advice on the above site includes:

- Health Services Information Sheet HSIS2 Slips and trips in the health services
- Pedestrian slipping: dry contaminants
- Pedestrian slipping: slopes and encumbrance
- Study of the dynamics of pedestrian stair use

**The slips assessment tool** is now available on the website. Use the ‘Contact’ page if you have a query on slips and trips

**HSE health services website**
www.hse.gov.uk/healthservices/index.htm

Priced publications and other information

**Slips and trips: Guidance for employers on identifying hazards and controlling risks** HSG155 HSE Books, price £7.50, ISBN 0 7176 1145 0

**Slips and trips Guidance for the food processing industry**. HSG156 HSE Books, price £9.75, ISBN 0 7176 0832 8

**Flooring Health technical memorandum** NHS Estates Building components 61, price £45.00, ISBN 0 11 322203 3

**Estate maintenance and works operations: health building note** NHS Estates 34, price £40, ISBN 0 11 321409 1

**Video**

**Stop slips (managing slips to reduce injuries and costs)**
HSE Books 2000, price £50.00+VAT, ISBN 0 7176 1819 6

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**HSE website**
www.hse.gov.uk

**HSE information line**
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Tel: 0870 1 545500
Fax: 02920 859260
Post: HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG

**HSE direct**
www.hsedirect.com

To report an accident

**Riddor reporting**
email: riddor@natbrit.com
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Fax: 0845 300 9924
Post: Incident Contact Centre, Caerphilly Business Park, Caerphilly CF83 3GG

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