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- EHS Risk Assessments
- Occupational Hygiene Surveys
- Ergonomics Surveys
- EHS Management
- System development and implementation
- Environmental Monitoring
- Identification of EHS Legal Requirements and Compliance Audits
- Construction EHS Services
- Construction H&S Files
- Internal Auditor Training
- General EHS Training



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Department of Employment
and Labour Approved
Inspection Authority
(OH0049-CI-09)

Newsletter compiled by
Lee Rands

HELP STOP THE SPREAD – IT IS IN YOUR HANDS

Why is it important to wash your hands often?

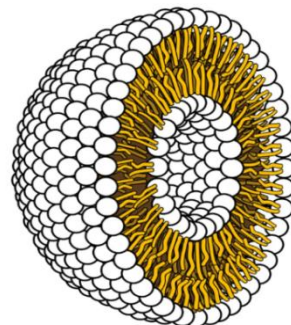
Coronavirus is a respiratory illness, which means that it is mostly spread through virus-laden droplets from coughs and sneezes. The droplets, if not caught in a tissue and safely disposed of, cause the virus to end up on surfaces which, if touched by someone else, can be transferred onto their hands.

If you have the virus on your hands and touch your eyes, mouth or nose, you can infect yourself. A 2015 study found that people touch their faces an average of 23 times an hour. While washing your hands is useful in preventing yourself from getting infected, it is also very much about stopping the spread to others.

Does soap kill coronavirus?

Coronavirus is an 'enveloped virus', which means that it has a protective outer layer known as a 'lipid bilayer'. The molecules making up this layer are shaped like a tadpole with a water-loving (hydrophilic) round head and a water-hating (hydrophobic) tail.

These molecules, arranged in a 'bilayer' (two layers piled on top of each other into a sheet), have tails pointing inwards and heads pointing outwards. The molecules are tightly packed into each other to protect the hydrophobic tails from the water in your respiratory droplets when you cough or sneeze. The hydrophilic heads are also very 'sticky', meaning they can effectively stick to your hands.



A lipid bilayer with the round, hydrophilic heads pointing outwards and the hydrophobic tails pointing inwards

Soap molecules also have this tadpole structure, which is what makes it so useful. For example, when you have something oily on your hands, running water won't get rid of it – but if you add soap to your hands, the hydrophobic tail will cling to the oil, and the hydrophilic head will stick to the water. The oil then comes off.

Because the soap molecules are so similar, the molecules in the lipid bilayer are as strongly attracted to soap molecules as they are to each other. This disrupts the neatly-ordered shell around the virus, dissolving it in the running water and killing it.

Does antibacterial hand sanitiser work?

Alcohol-based hand sanitiser will kill viruses if soap and water are not available. Alcohol is an antiseptic and can kill enveloped viruses, but it must contain 60 to 95 per cent alcohol. However, if there is visible dirt on your hands, you need to use soap and running water to clean the dirt off first.

Will washing my hands stop me from catching coronavirus?

It is impossible to know whether any particular case of coronavirus could have been prevented by better hand-washing because, while it is possible to contract coronavirus from touching your face with virus-contaminated hands, you can also catch it directly from the coughs or sneezes of a person that is infected. So, while washing your hands won't eliminate the risk of infection, **it is definitely a sensible and powerful safety measure.**

www.sciencifocus.com/news/coronavirus-can-hand-washing-really-stop-the-spread-of-covid-19/

How to Wash Your Hands Correctly:



Don't forget to dry hands thoroughly with paper towel!

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Southern Office

PO Box 27607
Greenacres
Port Elizabeth
6057

Tel: +27 (0)41 365 6846
Fax: +27 (0)41 365 2123

info@safetech.co.za

Northern Office

PO Box 80171
Doornpoort
Pretoria
0017

Tel: +27 (0)82 4111 571
Fax: +27 (0)86 6579 864

carlita.westoby@safetech.co.za



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CONTROLLING HAZARDOUS ENERGY

De-Energising and Lock-Out

Hazardous energy is any energy source that could cause injury or death to workers. Some energy sources are obvious, such as electricity, heat in a furnace, or something that might fall. Others may be hidden, for example a tightly wound spring or air pressure in a system.

The purpose of de-energisation and lockout is to prevent the release of energy that poses a hazard to workers. The term hazardous energy control and de-energisation and lock-out are sometimes used interchangeably, but they are not the same thing:

- **Hazardous Energy Control**

Describes the use of designs, methods and procedures to protect workers from injury resulting from the release of hazardous energy.

- **De-energisation**

A process used to disconnect and isolate a system from a source of energy, to prevent the release of that energy to ensure that it does not cause harm by way of movement or the release of radiation, electricity, chemicals, heat, light or sound.

- **Lock-Out**

The placement of a lock on an energy-isolating device, to ensure that the device is not operated until the lock is removed.



When is de-energisation and lockout required?

If machinery could unexpectedly activate, or if the release of an energy source could cause injury, the energy source must be isolated and controlled.

If machinery or equipment is shut down for maintenance, workers may not perform work until the following has been done:

- ✓ All parts and attachments have been secured against inadvertent movement;
- ✓ Energy sources have been controlled;
- ✓ Any energy-isolating devices, such as switches or valves, have been locked out;
- ✓ Equipment has been checked to confirm that all energy has been isolated and controlled.

When is de-energisation and lock-out not required?

During normal production work, where workers are required to perform production-related tasks, lock-out and de-energisation may not be required. However, the exception only applies to normal production work and not to maintenance tasks. The following steps can be used to decide if it is necessary:

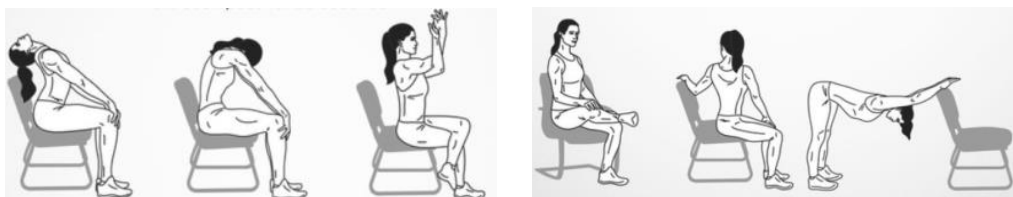
- ❶ Decide whether there is a risk to workers from the movement of the machinery / equipment, ejection of material from the equipment, or exposure to an energy source while the activity is being carried out.
- ❷ If there is absolutely no risk, de-energisation and lock-out is not required. **Important to note is that expecting workers to stay away from a hazard, does not negate the risk of injury.**
- ❸ If there is a risk of injury, decide if the hazard is effectively safeguarded to protect workers. If effective controls are in place, de-energisation and lock-out is not needed for the production tasks.

To work on energised machines, all persons must be declared competent by the employer.

A risk assessment may be required to determine if the safeguards are effective enough.

<https://www.worksafebc.com/en/resources/health-safety/books-guides/controlling-hazardous-energy-deenergization-lockout-bk217tangren>

Chair Stretches For Lower Back Pain (hold each stretch for 20 seconds)



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