

NCVDLS Quarterly Safety News

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Centrifuges are a common and familiar feature in our laboratories and it is easy to overlook that they operate at such high speeds and the forces they generate can be enormous. Centrifuging presents the possibility of two serious hazards: mechanical failure and the accidental release of harmful aerosols.

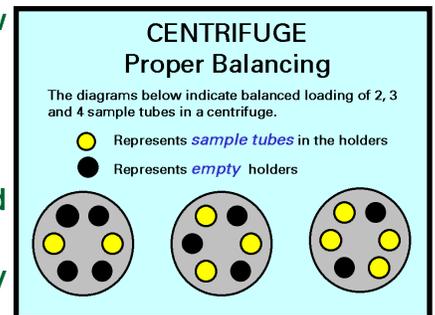
Most centrifuge accidents result from user error. To minimize any chance of problems when operating a centrifuge, follow these guidelines:

Before centrifugation

1. Be sure to read the operators manual.
2. Inspect all tubes for cracks or flaws. Discard any tubes that are damaged.
3. Avoid overfilling tubes and be sure they are tightly capped.
4. Make sure that tubes are properly balanced on the rotor. Running a centrifuge with an unbalanced load could lead to rotor damage and possible injury.
5. When using swinging bucket rotors, make sure that all buckets are hooked correctly and move freely.

During centrifugation

1. Keep the lid closed during operation. Never open a centrifuge until the rotor is stopped
2. Do not exceed safe rotor speed.
3. Do not leave the centrifuge until full operating speed is reached and the machine is running safely without vibration.
4. Stop the centrifuge immediately if an unusual condition (noise or vibration) begins and check load balances.



Lockout Tagout (LOTO) Explained



Employees servicing or maintaining machines or equipment may be exposed to serious physical harm or death if hazardous energy is not properly controlled.

All energy sources which could activate the machine must be locked out and tagged

Many workplace accidents are caused by machinery that accidentally becomes activated while being serviced or maintained. Many of these accidents can be prevented if the energy sources are isolated, and locked or tagged out.

The Occupational Safety and Health Administrations (OSHA) has a regulation on the control of hazardous energy. It requires the use of LOTO procedures to prevent accidental or



inadvertent start-up when such operation could cause injury to personnel.

LOTO procedures require that all hazardous energy sources are properly shut-off before any maintenance work is started. A locking device is used on all the energy sources to prevent them from being switched on (this is called “lockout”). A tag affixed to the locking device cautions that it should not be turned on (this is called “tagout”).

Exemption:

The OSHA LOTO standard does not apply to work on cord and plug connected electric equipment when unplugging the equipment isolates the equipment from all energy sources, the equipment has no stored energy, and the plug remains under the control of the employee performing the work.

Never attempt to remove or bypass a lock or tag that has been applied by someone else



Don't Bring Germs Home

What You Work With Can Make You Sick

Follow safe lab practices—and don't bring germs home with you.



Always wash your hands with soap and water...

- ▶ Right after working in the lab
- ▶ Just before you leave the lab

Avoid contamination while in the lab.

Don't eat, drink, or put things in your mouth (such as gum)

Don't touch your mouth or eyes

Don't put on cosmetics (like lip balm) or handle your contact lenses



Don't carry dangerous germs from the laboratory home with you.

Leave personal items outside of the lab so you don't contaminate them: cell phone, car keys, tablet or laptop, MP3 player

Keep work items off of bench areas where you do experiments: backpacks, notebooks, pencils, pens

Leave lab supplies inside the lab.

If you must take supplies out of the lab, keep them in a separate bag so you don't contaminate anything else



Leave your experiment inside the lab so you can stay healthy outside the lab.



Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

CS237165



Persons operating NCDA&CS vehicles must observe all state motor vehicle laws and ordinances. Persons operating NCDA&CS vehicles and passengers are required to wear seat belts as required by law. Smoking is not permitted in NCDA&CS vehicles.

Texting and emailing while driving are illegal according to G.S. § 20-137.4A.

NCDA&CS recognizes that in certain urgent situations employees may deem it necessary to talk using a cellular phone while operating a motor vehicle. However, given the dangers of driving while using a Mobil Communication Device (MCD), the department strongly discourages this practice and encourages drivers to use MCDs only while safely parked. The department also encourages the use of hands-free devices for limited conversations.

CO: The Silent Killer

Carbon monoxide (CO) is the leading cause of accidental poisoning deaths in America. According to the Centers for Disease Control, each year, more than 400 Americans die from unintentional CO poisoning, more than 20,000 visit the emergency room and more than 4,000 are hospitalized due to CO poisoning. Carbon monoxide is colorless, odorless, and tasteless. It cannot be detected by humans

CO is a byproduct of incomplete combustion. CO sources can include malfunctioning appliances such as furnaces, stoves, ovens and water heaters that operate by burning fossil fuels such as oil, natural gas or propane. Fireplaces, generators, barbeque grills & running vehicles are also a source.

If you have CO sources in your home, be sure to keep your family safe by having a CO detector near to each sleeping area.

