

**Risk Assessment: Safe Use of Laboratory centrifuges**

Centrifuges are used to separate substances within liquid samples. They are driven by a motor, which can spin at high speed and subsequently high g. Centrifuges are powerful and specialist pieces of laboratory equipment and should be treated as such. The most serious incident that could occur would be the rotor separating from the spindle and smashing into the side.

Carried out by: Samantha Thulborn	Date carried out: April 2014	Review Date: April 2015 Reviewed – No changes Made
		Review Date: April 2016

<b>Hazard (Cause and consequence)</b>	<b>Affected Group</b>	<b>Existing controls</b>	<b>Risk</b>	<b>Further Action Required</b>
Mechanical failure of rotating parts (often violent).	Staff Students Visitors	Ensure that centrifuges are cleaned properly and with noncorrosive detergents. Ensure that usage of rotors and centrifuge is recorded where relevant. Ensure that centrifuges are serviced on a regular basis. Ensure that users are trained in the proper and safe use of centrifuges.	Medium	No
Contact with rotating parts.	Staff Students Visitors	Ensure that end users are trained in the proper and safe use of centrifuges. Ensure that the lid lock is in good working order. Ensure that end users NEVER to attempt to open a centrifuge whilst a programme is running. Ensure that end users know how to load and balance a centrifuge correctly.	Medium	No
Sample leaks causing aerosols, stress corrosion, contamination	Staff Students	Ensure that end users are using the appropriate tubes for samples. Ensure that centrifuges, rotors and buckets are cleaned and dried after every use. Ensure that end users clear any spillages.	Medium/Low	No



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Fire and/or explosion gases or fluids	Staff Students Visitors	Ensure that end users are using the appropriate tubes for samples. Ensure that the centrifuge is turned off after every use/at the end of each day.	Medium	No
Contact with contaminated components / vapours	Staff Students Visitors	Ensure that end users are using the appropriate tubes for samples. Ensure that centrifuges, rotors and buckets are cleaned and dried after every use. Ensure that end users clear any spillages. Where possible use centrifuges with clear lids so that any split tubes can be spotted before opening the centrifuge and correct PPE and/or fume hood can be used before opening.	Medium/Low	No
Manual handling injuries (Musculoskeletal Disorders)	Staff Students Visitors	All staff using centrifuges must be adequately trained, read and understood relevant SOP. Ensure that adequate training regarding lifting of heavy equipment is provided. Store heavy rotors at bench height where possible.	Medium	No