

# Recommendation for N95 Respirators in MRI

## COVID-19 Pandemic

If you have any questions or comments regarding this information sheet please contact [DI.EmergencyResponse@ahs.ca](mailto:DI.EmergencyResponse@ahs.ca)

The purpose of this document is to outline strategies that maximize compliance with Infection Prevention & Control (IPC) standards of practice while minimizing use of Personal Protective Equipment (PPE) and adhering to magnetic resonance safety principles.

### Principles

- Safety of staff and patients within an MRI facility is of primary importance at all times.
- Any and all equipment in an MRI environment is labelled with one of three possible safety levels:
  - MRI Safe – Safe to be used in the MRI environment
  - MRI Conditional – Safe to be used in the MRI environment under specific conditions
  - MRI Unsafe – Not safe to be used in the MRI environment under any circumstances
- There are many types of N95 respirators currently in use within AHS facilities.
- With regards to use in the MRI environment the N95 respirators fall into two categories:
  - Those that are MRI safe, with no metallic components. (i.e.-8210)
  - Those that are MRI conditional, made with ferromagnetic staples. (i.e.-1870+, 8110s and others)
- The ferromagnetic nature of the staples may cause the seal of these respirators to be breached in certain circumstances within Zone 4 of an MRI department.
- This potential breach would be a higher concern at magnetic field strength of 3T as opposed to 1.5T.
- The specific scenarios in which this potential breach may occur would depend on the strength and design of each specific MRI scanner, location of the respirator in relation to the magnet and duty being performed by the staff member. These are too complex to predict and describe.

### Recommendations for N95 Use in MR

#### Recommendation #1:

- Whenever possible, staff required to wear N95 respirators while in Zone 4, should use model #8210.
- Staff not fit tested for the #8210 respirator may work within Zone 4 under certain conditions.
  - Avoid coming within an area of 30.5cm (12") of the bore and external housing of the scanner.

#### Recommendation #2:

- Patient care tasks performed in this sensitive area should be accomplished in one of two ways:
  - By a staff member wearing an #8210 N95 respirator
  - By removing the patient so that the task may be performed outside of this sensitive zone.

#### Recommendation #3:

- Staff who work the majority of their time in the MRI department should be fit tested for the 8210 model of N95 respirator.

### Definitions for the purpose of this information sheet:

**Zone 4** – Refers to the room containing the MRI scanner.