Using a Filtering Facepiece Respirator
What’s a filtering facepiece respirator?

- A device that is worn to protect your lungs from airborne particles.

- For example, they may be used for exposures to some types of dusts or sprays.

- It has been approved by NIOSH so it is a respirator
  - Will always be labeled “NIOSH” and/or “N95”

- OSHA regulates how respirators are used in the workplace.
What’s the difference between a filtering facepiece and an N-95?

<table>
<thead>
<tr>
<th>Filter Efficiency</th>
<th>Not Oil Resistant (N)</th>
<th>Oil Resistant (R)</th>
<th>Oil Proof (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95%</td>
<td>N-95</td>
<td>R-95</td>
<td>P-95</td>
</tr>
<tr>
<td>97%</td>
<td>N-97</td>
<td>R-97</td>
<td>P-97</td>
</tr>
<tr>
<td>100%</td>
<td>N-100</td>
<td>R-100</td>
<td>P-100</td>
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What’s an N-95 filtering facepiece respirator?

- May also be called a “dust mask”
- Different styles, models, and manufacturers may look slightly different.
- Models approved for RAR:
  - KC PFR95
  - 3M 9211
  - Kimberly Clark PFR 95
Procedure and surgical masks

- Are NOT respirators
- DO NOT protect you
- ARE NOT rated by NIOSH
  - Will NOT be labeled “NIOSH”

- THESE ARE NOT RESPIRATORS
- THEY DO NOT PROVIDE ANY PERSONAL PROTECTION
- THEY PROVIDE PROTECTION FOR THE ANIMAL FROM PARTICLES YOU MIGHT GENERATE.
Nuisance masks

- Should not be used anywhere at the U.
  - You may be able to find these at hardware stores and used off-the-job.
- Will *usually* have only one headband.
- Are NOT respirators
- DO NOT protect you
- ARE NOT approved by NIOSH
  - Will NOT be labeled “NIOSH”
- THESE ARE NOT RESPIRATORS
- NO EMPLOYEE PROTECTION
Do I have to use a filtering facepiece?

Using a filtering facepiece is required when you are:

- Dumping cages without special ventilation like a bio bubble.
- Cage cleaning or changing without special ventilation like a bio bubble.
- Cage cleaning in a lab hood (except BSL2 hoods).
- Working in areas with high density of animals without filter tops.
- Doing lengthy experiments without special ventilation or in a non-BSL2 hood.
Why do I have to wear it?

Lab animal allergens
- 11 to 44% of animal care workers develop Lab Animal Allergy (LAA)
- Up to 30% of workers may develop symptoms in first year
- 4 to 22% with LAA have asthma

Causes of LAA
- Inhalation of proteins on urine, hair, dander
- 40% allergic to multiple animals
- Rats and mice most common cause
  - Males more allergenic than females

Other animals include:
- Rabbits
- Guinea pigs
- Cats
- Dogs
Why do I have to wear it?

Symptoms of Lab Animal Allergy
- Most common symptoms (up to 80%) are nasal congestion and runny nose
- Eye irritation, conjunctivitis
- Cough
- Asthma
  - Chest tightness, wheezing, shortness of breath
- Skin rash - hives, contact dermatitis
- Anaphylaxis (rare) from bites, puncture wounds
How does a filtering facepiece work?

When used properly, a filtering face piece prevents you from inhaling small particles.

As you inhale, air is drawn through the filter which collects the particles.

Exhaled air passes through the filter or sometimes a valve.
What if I don’t want to wear it?

- Wearing the proper safety equipment is part of your job, just like getting to work on time.

- Choosing to not follow any safety rule is the same as choosing to not do your job.
How do I get one?

- Respirators and other personal protective equipment (PPE) will be provided by your department. Ask your supervisor for details.
Limitations of a filtering facepiece

- Particles may bypass the seal if it is not worn properly.
- They do not protect against vapors.
- They do not work well for high concentrations of dust.
- They are not suitable for highly toxic substances.
- They do not provide oxygen.
Can I wear a filtering face piece if I have facial hair?

It depends...

- If the facial hair comes between the sealing surface of the facepiece, and the face,

OR

- If facial hair is so long that it interferes with the proper functioning of the valve,

THEN

- No, you can’t wear it.
How do I put it on?

Instructions are on the package or Box.
How do I put it on?

- Place the respirator over your nose and mouth. Be sure the metal nose clip is on top.
How do I put it on?

- Pull the top strap over your head until it rests on the crown of your head above your ears.
- Pull the bottom strap over your head until it rests just below your ears.
How do I put it on?

- Using both hands starting at the top, mold the metal nose clip around your nose to achieve a secure seal.
Check for a good seal

- Make sure the facepiece lies flat and seals around your nose, cheeks and chin.

- For respirators without valves, put your hands over the respirator and breathe out sharply.

- The respirator should puff out slightly.
Using a filtering facepiece over time

Replace your filtering facepiece at least daily.

- They can’t be cleaned or repaired if they are damaged.
- Replace it if it becomes difficult to breathe or if it becomes soiled.
- Replace it if the air through the filter becomes hot.
- Dispose of it at the end of the day or the end of your shift. Do not leave it lying around, hanging on hooks etc.
- Follow the rules of your area or the research. Some protocols require that they be discarded before leaving.
If you have problems...

If...

- You feel ill, or claustrophobic
- If the straps fail
- If it smells bad or,
- You have any other issue

■ Take it off and leave the area
■ Tell your Supervisor.
■ Find out what the problem is before you re-enter the space.
Medical fitness to wear a filtering facepiece respirator

If you are required to wear a filtering facepiece respirator, you need a medical evaluation.

- Wearing a respirator taxes your cardiopulmonary system.
- May cause problems for people with claustrophobia, diabetes, heart or respiratory problems, etc.
Medical fitness to wear a filtering facepiece respirator

- You must complete the medical questionnaire
- Health care provider reviews your responses
- The provider determines if you require a medical exam based on the questionnaire.
- The results are used only to determine your fitness to wear a respirator.
- All results are confidential
- Free of charge and at a convenient time and place.
Respirator Fit

- You must be taught how to properly put on the respirator.
- Read and follow the instructions.
- Have the trainer show you how to properly put it on and take it off.
- Use a mirror to ensure it is on properly.
- Perform a seal check to double check the fit.
Respirator Fit Testing

- You must be fit tested when you start a job that requires respirators.
  - Must be done after you’ve been medically evaluated
  - Annually
  - Whenever there’s reason to believe a respirator may no longer fit you.
- A qualitative fit test with Saccharin, bittrex or banana oil is used.
- The fit test takes at least 10 minutes.

YOU MUST ALWAYS WEAR THE MODEL OF RESPIRATOR YOU WERE FIT TESTED FOR!
For More Information

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What should I do with my respirator when I’m not wearing it during the day?

- If you re-don your respirator multiple times during the day, please store it properly (put it in a bag and keep it in a clean place).
- DON’T HANG ON HOOK or DOORKNOB.
- All PPE, especially filtering facepieces, must be stored in a manner that prevents damage, deformation, and exposure to temperature extremes.
- PPE may not be stored in a manner or location that exposes it to contamination.
- PPE may not be stored in animal rooms.
- PPE users must comply with all manufacturer’s instructions on storage.