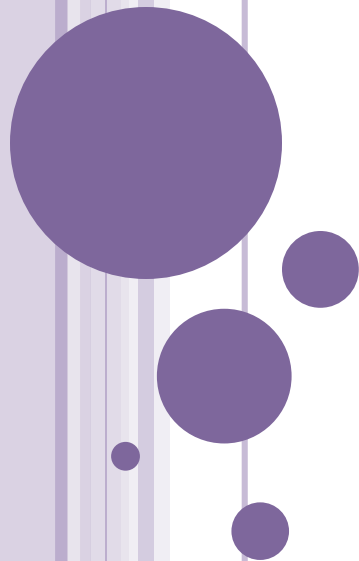
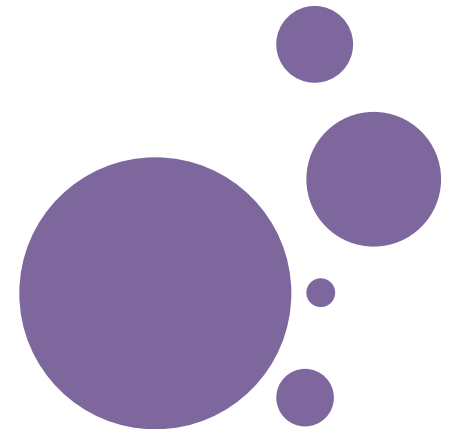


# **N95 RESPIRATOR FIT-TESTING USES AND LIMITATIONS OF RESPIRATORS AT BCHS**



# KEY TOPICS FOR TODAY

- Respiratory protection for pathogens
- Types of N95 Respirators
- N95 respirator and features
- Who should be tested and when
- Uses and limitations of N95 Respirators



# RESPIRATORY PROTECTION FOR PATHOGENS

## ❑ **What is a Pathogen?**

Any biological agent that causes disease or illness to its host.  
Types of pathogens include **Bacteria, Viruses, Protozoa, Fungi, Parasites and Proteins.**

## ❑ **Other hazards**

Dusts, gases, fumes, mists and vapours

The respirator acts as a filter by preventing bacteria and viruses (usually airborne in droplets) from getting into the body through the airways

The respirator we fit you for is for pathogen protection only, and is not to be protection for any other hazard.



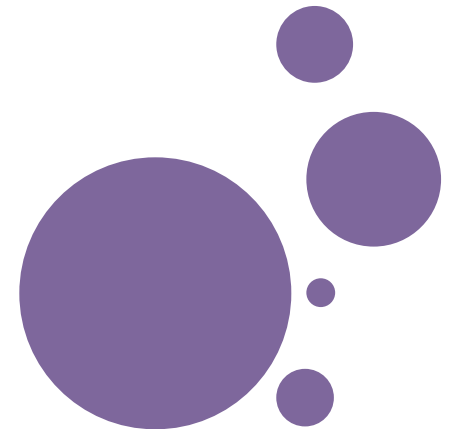
# TYPES OF N95 RESPIRATORS

In general there are two types of respiratory protective equipment:

- 1. Air purifying respirators**
- 2. Air supplying respirators.**

## **N95**

Is a type of air purifying respirator (or filter) for airborne particles including bacteria and viruses



# TYPES OF N95 RESPIRATORS (CONT'D)

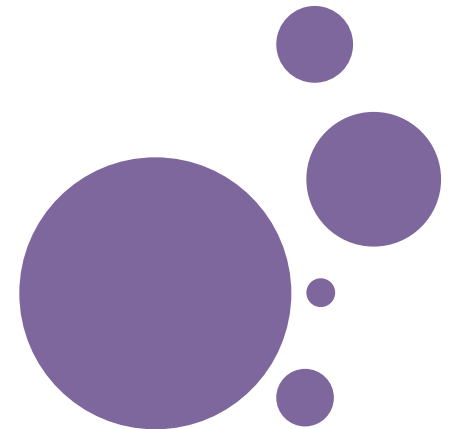
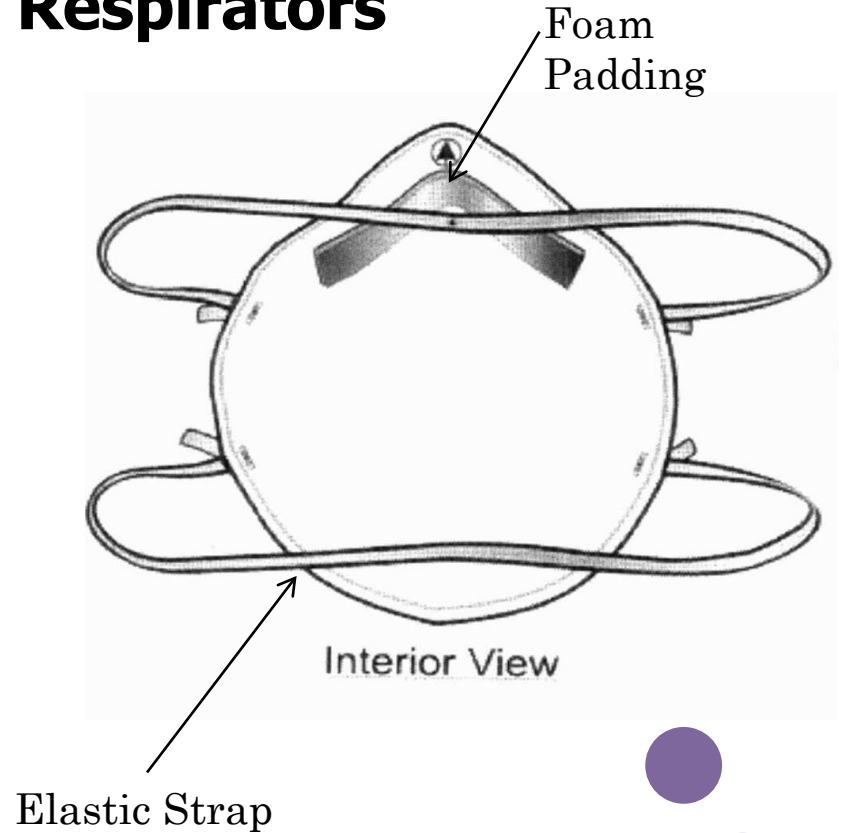
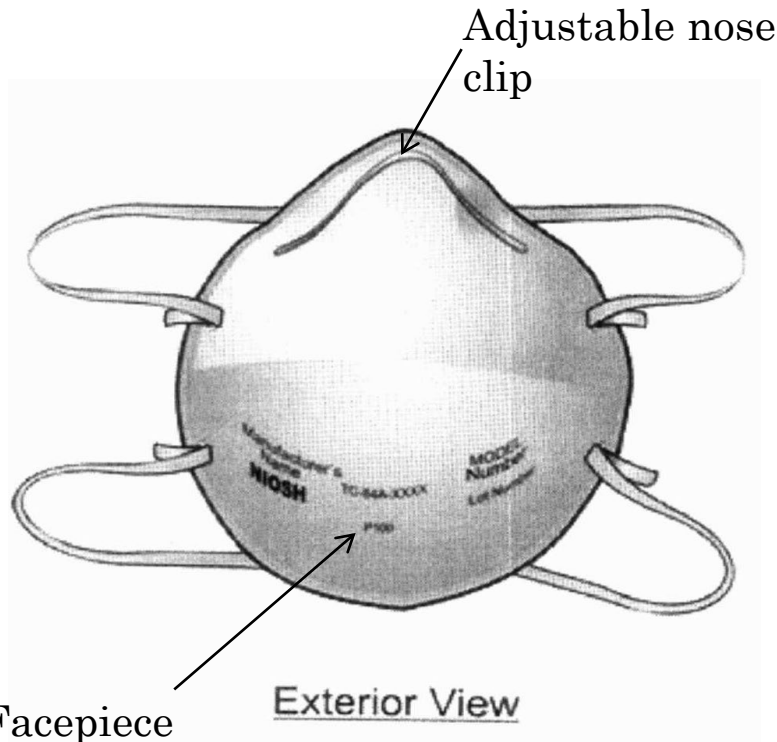
The N95 respirator is the most common type of particulate filtering facepiece respirator.

Designated by NIOSH (National Institute for Occupational Safety and Health) because is at least 95% efficient at filtering airborne particles down to 0.1-0.3 micrometers (one millionth of a meter or one thousandth of a millimeter) in diameter.



# N95 RESPIRATOR AND FEATURES

## General features of N95 Respirators



# N95 RESPIRATOR AND FEATURES (CONT'D)

## TYPES OF N95 MASK

### □ Standard N95 Mask

Consists of:

1. Face piece – filter, covers the mouth and nose
2. Straps – 2 - usually elastic to secure the respirator firmly on the face
3. Nose Clip – Adjustable for secure fit around the nose



# N95 RESPIRATOR AND FEATURES (CONT'D)

## ❑ **Flatfold Mask:**

- Unfolds to reveal 3-panels
- Also have elastic straps and adjustable nose clip
- Provides more comfort and fits wider variety of faces





# N95 RESPIRATOR AND FEATURES (CONT'D)

## ❑ **Valve Fitted Respirators:**

Usually for special uses  
Adjustable nose clip

## ❑ **Special Feature:**

Exhale valve – helps with cooling and reducing moisture



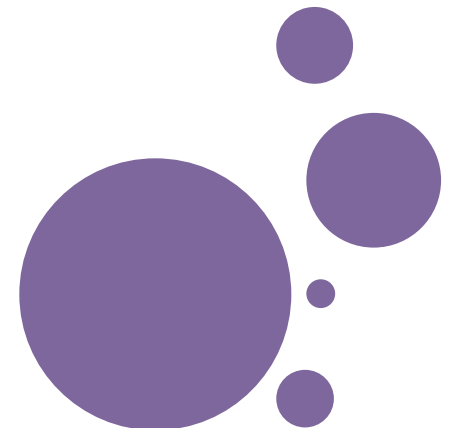
# WHO SHOULD BE TESTED AND WHEN

The fit test process involves selecting the correct size and type of respirator for each employee and ensuring that he or she knows how to use it correctly.

## **Who should be tested?**

**All employees** shall will be mandatory fit tested every two years and instructed in the **care, usage,** and **disposal** of the N95 respirator. Including:

- Health care students and volunteers;
- Students completing residency; and
- Physicians



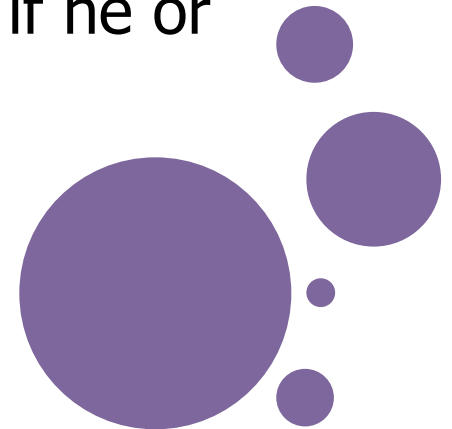
# WHO SHOULD BE TESTED & WHEN (CONT'D)

## **Exceptions:**

Some conditions may seriously affect a worker's ability to safely use a respirator – see list of conditions in our Respiratory protection policy.

## **What should the worker do?**

1. Complete the **Pre-screening Health Questionnaire**.
2. *If a worker answers yes to any of the questions in section A, he or she will have Org Health review and complete a **follow up** form confirming if he or she is able to comply*
3. The completed form is returned to Organizational Health.



# WHO SHOULD BE TESTED & WHEN (CONT'D)

## **When to test:**

- Every two (2) years or more frequently if any of the following conditions exist:
  - weight gain or loss (+/- 10%) (including pregnancy changes);
  - dental changes;
  - facial scarring;
  - facial cosmetic surgery.

## **Note:**

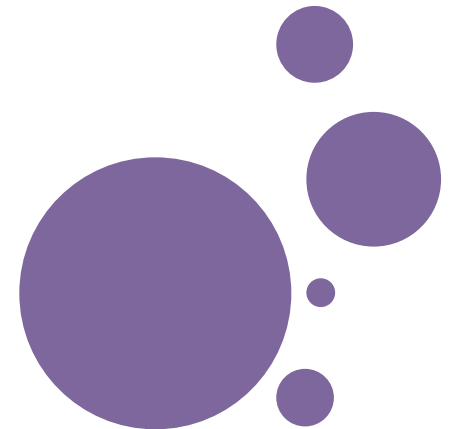
**The individual employee is responsible for reporting any of the above conditions to Organizational Health**



# WHO SHOULD BE TESTED & WHEN (CONT'D)

## **Important:**

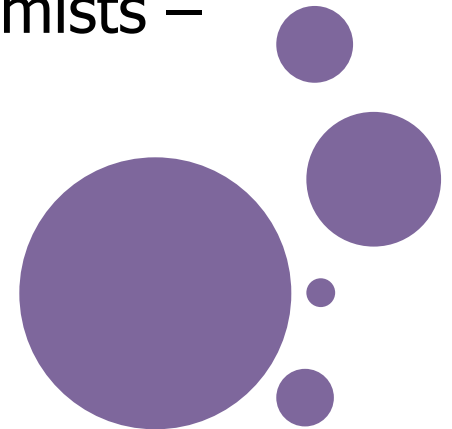
*At no time should a person work in an area where N95 respirator use is required, if he or she is not wearing a properly fitted N95 respirator.*



# USES & LIMITATIONS OF N95 RESPIRATORS

**N95 respirator may become less effective (i.e. not provide protection) if:**

- Modified or misused.
- Used with beards, other facial hair or any other conditions that may prevent a good face-seal.
- Used when wet or soiled.
- If the seal around the nose & mouth is not tight.
- Used for protection against chemicals, vapours, solvents, toxic particulates or oil based mists – (there are other respirators for those applications).



# USES & LIMITATIONS OF N95 RESPIRATOR

(CONT'D)

## **N95 respirator may become less effective (i.e. not provide protection) if:**

- The respirator is defective in any form(i.e. rips or holes)
- The respirator is reused
- The respirator is contaminated in storage or handling
- Never reuse a respirator that has been used in a potentially infectious environment

### **Note:**

Any defective respirator must be discarded immediately.



# USES & LIMITATIONS OF N95 RESPIRATOR

(CONT'D)

## **Replacement of the respirator:**

The respirator should be replaced when:

- The wearer senses an increase in breathing resistance;
- The respirator collapses due to excess moisture;
- The worker senses (smells/tastes) breakthrough;
- The wearer returns from lunch/breaks (or any area outside the infected area);
- The respirator has been used for a maximum of one full shift; and/or
- There is an inadvertent action such as writing on the face piece, folding, crushing of the mask, or if straps are broken.





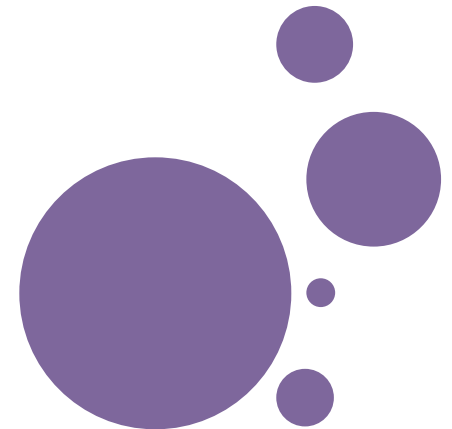
# USES & LIMITATIONS OF N95 RESPIRATORS

(CONT'D)

## **NOTE:**

Disposable respirators (N95 Respirators) should not be re-used.

Respirators need to be stored outside contaminated areas such as isolation rooms.

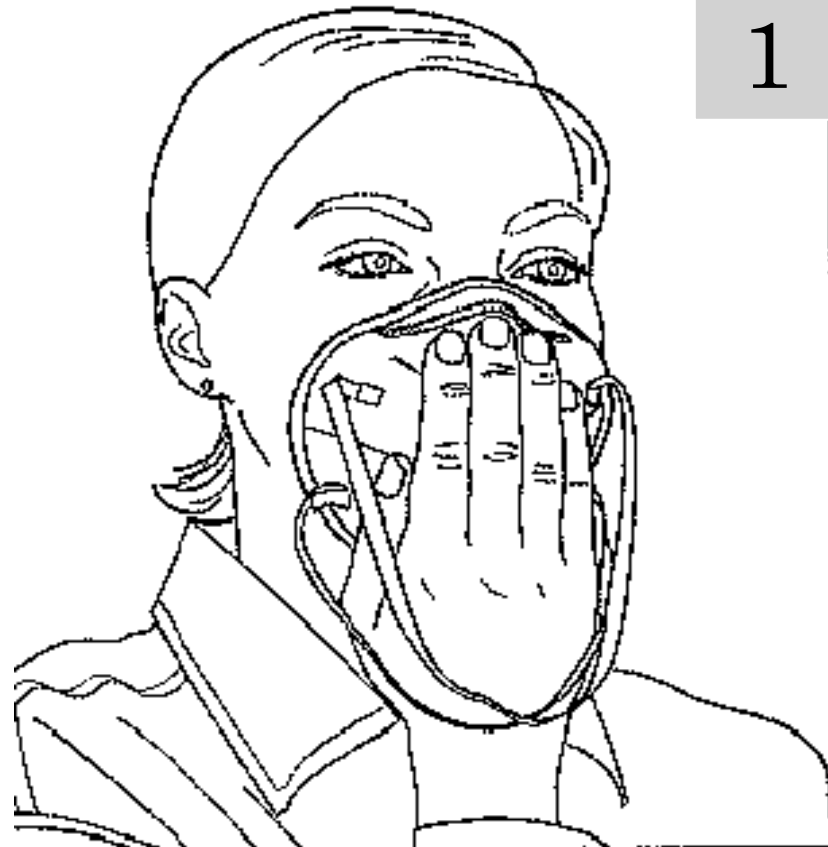


# PROPER DONNING OF N95 RESPIRATORS

## Donning of standard Respirators (e.g. 3M 8210, 8110):

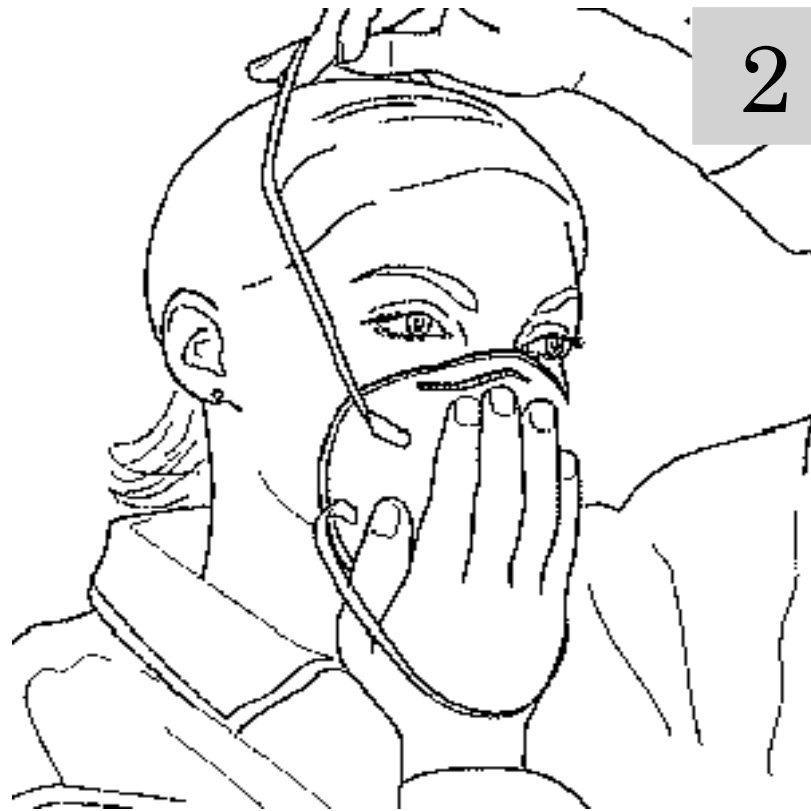
1. Pre-stretch the straps.

Place the respirator over your nose and mouth. Ensure the metal nose clip is on top



# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

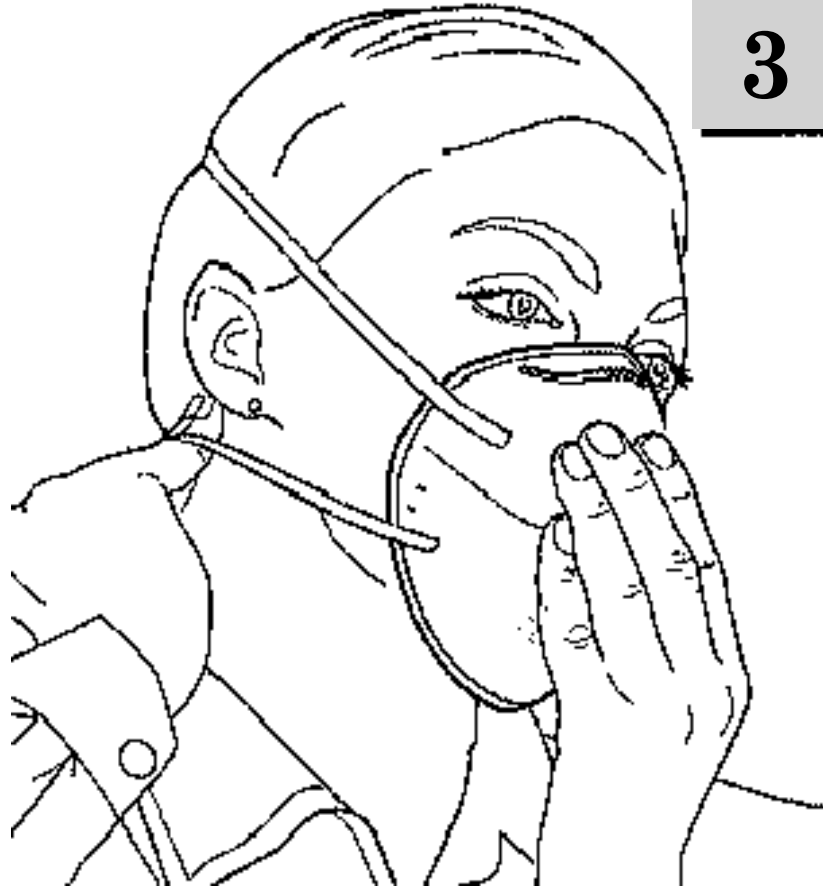
2. Pull the top strap over your head until it rests on the crown of your head above your ears



# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

3. Pull the bottom strap over your head until it rests just below your ears

**3**



# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

- Using both hands starting at the top, mould the metal nose clip around your nose to achieve a secure seal

## **NOTE:**

Pinching with one hand may result in improper fit



# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

## User Seal Check

Place both hands completely over the respirator and exhale. The respirator should bulge slightly. If air leaks between the face and face seal, reposition it and readjust the nose clip for a more secure seal

## NOTE:

**The above procedure is for non-valved respirators only**

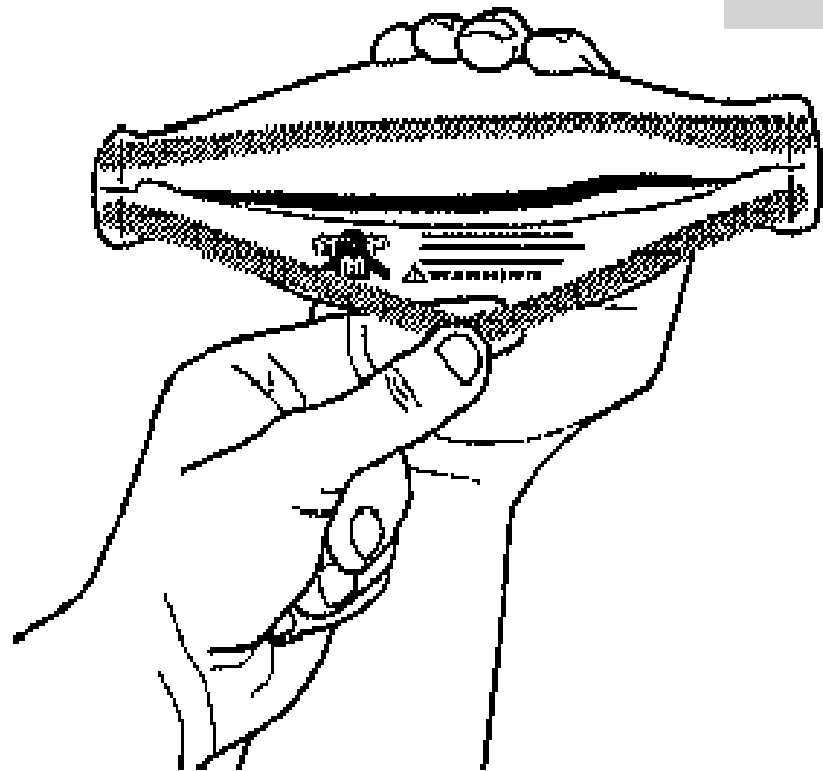


# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

## Donning of flatfold 3-panel respirator (e.g. 3M 9210, 9211):

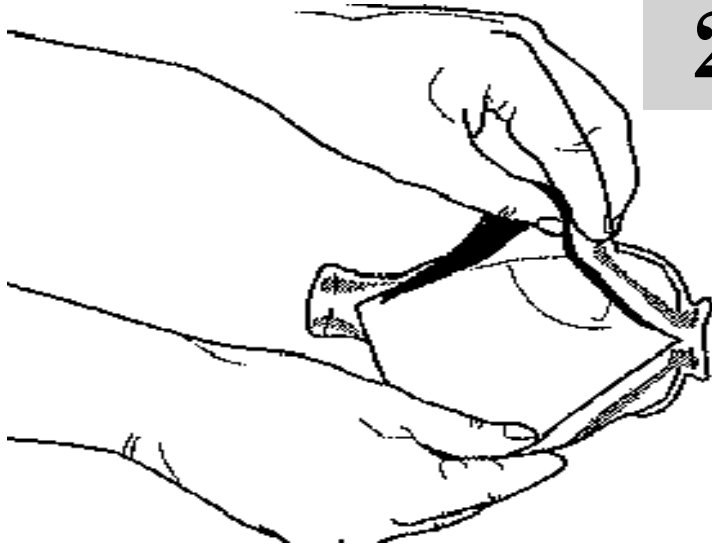
1. Hold the respirator with straps facing upward. Place the bottom strap under the center flaps next to the "Warning" statement.

1



# PROPER DONNING OF N95 RESPIRATORS (CONT'D)

2



2. Bend the nosepiece into curve as you open the bottom panel completely

3



3. Place the respirator on your face with the foam resting on your nose and the bottom panel under the chin



# PROPER DONNING OF N95 RESPIRATORS (CONTD.)



4. Pull the top strap over your head and position it high on the back of the head. Then pull the bottom strap over your head



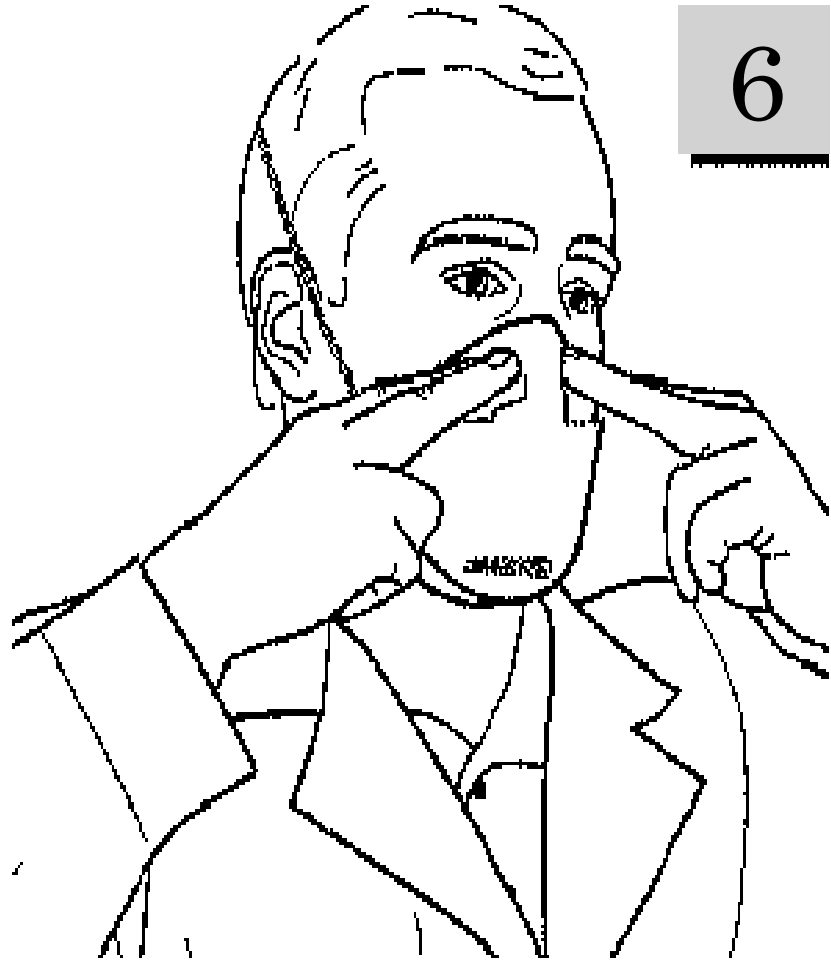
5. Adjust by pulling the top panel toward the bridge of your nose and positioning the bottom panel under the chin

# PROPER DONNING OF N95 RESPIRATORS (CONTD.)

6. Place finger from both hands at the top of your nose and mold the nosepiece around your nose to achieve a secure seal

## **NOTE:**

Do not pinch the nosepiece with one hand to avoid improper fit



# PROPER DONNING OF N95 RESPIRATORS (CONTD.)

## User Seal Check:

Place one or both hands completely over the middle panel. Inhale and exhale sharply. If air leaks around your nose, readjust the nosepiece. If air leaks between the face and the face seal, reposition the respirator by adjusting the panels and straps



UNTIL NEXT TIME..



**YOU CAN  
Prevent Injuries  
From Happening!**

**Contact the Organizational Health Team with any  
questions.**