Respirator use in the workplace – the basics

We’re frequently asked about respirators, medical clearances and fit-testing. Here is some basic information.

What is a respirator?
A respirator is personal protective equipment (PPE) that is worn on the face and covers at least the nose and mouth. A respirator is used to reduce the wearer’s risk of inhaling hazardous airborne particles (dust or infectious agents), gases or vapors.

What is an N95 respirator?
An N95 respirator is a face piece device that filters out at least 95 percent of airborne particles. It is not a dust mask. The Centers for Disease Control and Prevention (CDC) recommend N95 or higher protection for exposure to some diseases, such as tuberculosis and severe acute respiratory syndrome (SARS).

Can I issue respirators and have employees begin wearing them immediately?
No. OSHA requires employees issued respirators first be medically cleared to wear them; this clearance must occur prior to any fit-testing of the device(s). The medical clearance may be done by having an exam in-clinic or questionnaire reviewed by a medical professional. Clearance must be performed upon any significant change in the employee’s health or job function. Most companies assign respirator-wearers to a clearance schedule based on good risk-management practice (e.g., every year for those wearing the respirator frequently in a hot, dirty environment; every three years for those wearing the device occasionally in a clean, room-temperature environment).

What is a respirator fit test?
A respirator fit test is conducted to ensure that the respirator comfortably and correctly fits the user. The user is exposed to a test agent, which is detected by an instrument (quantitative) or by the user’s sense of taste, sense of smell or involuntary cough (qualitative).

Why is fit testing necessary?
OSHA requires a respirator fit test to confirm that a respirator has a tight fit to the user’s face before it may be worn in the workplace. A worker may experience higher than expected exposure to a hazardous substance if the respirator has a poor face seal that leaks.

What are the benefits of fit testing?
In addition to OSHA compliance, the benefits of fit testing include better protection for the employee and employer verification that the employee is wearing the correct model and size respirator.

How often must fit testing be done?
• At least annually
• When a new model, type, brand or size is worn
• User’s weight fluctuates; facial or dental alterations occur

For more information, visit: tinyurl.com/phnr9lk.
Medical monitoring for welders

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Industrial welders work with a wide variety of materials, with potential exposure to a multitude of health hazards, including air contaminants (metal fumes, particulates, gasses), as well as physical agents (ergonomic stress, heat, electricity, noise, infrared and ultraviolet radiation). These hazards may lead to both rapid and insidious health effects, resulting in decreased productivity, increased health care costs and absenteeism.

There are no legal requirements to perform medical surveillance on workers exposed to welding fumes. OSHA [under 1910.134 (e)] mandates medical evaluation to determine an employee’s ability to use a respirator before the individual is fit tested or required to use the respirator. Depending on the circumstance, medical surveillance for specific hazards (e.g., chromium) associated with welding may be required or recommended.

Pre-placement and annual medical examinations are important secondary prevention strategies to decrease the risk of lung disease associated with exposure to welding fumes. This is done by identifying symptomatic workers early, removing them from the causative exposure, and providing treatment, thus reducing the likelihood of chronic disability. These examinations consist of employee completion of a focused questionnaire and history, physical exam and an annual pulmonary function test.

Medical surveillance must not be considered a substitute for sound occupational safety practices. Suitable fume, dust and chemical controls are the only effective primary prevention strategies.