

Medical Pre-Placement Evaluation for Workers Engaged in the Deepwater Horizon Response

The objective of these recommendations is to provide guidance for health professionals who provide primary care to workers or volunteers who may be involved with the Deepwater Horizon response. The recommendations describe a plan for pre-placement evaluation to gather medical information on workers prior to beginning oil spill response work. The pre-placement evaluation is not a formal fitness for duty examination, but is designed to 1) provide health professionals with guidance on the important elements of such a pre-placement evaluation; 2) help health professionals identify individuals with health concerns that need to be addressed, identify individuals with specific susceptibilities whose activities may need to be restricted or modified, and identify medication, immunization or training needs; and 3) provide valuable information to the worker on his/her health status and potential demands of the work they will encounter. Additionally, this evaluation will provide some documentation of the worker's health status, and may provide an opportunity for the worker to be directed to further medical evaluation.

Who needs a pre-placement evaluation?

- Workers who are recently hired for oil spill response work or to work in the immediate clean-up area.
- Workers who are deployed from their regular employment for cleanup activities or to work in the immediate response area.
- Workers who are already deployed, but are removed from their regular duties for clean-up activities or to work in the immediate clean-up area.
- Workers who are currently in a work-related health monitoring program may not require an immediate pre-placement evaluation. However, this additional evaluation may have benefits and should be considered by those administering other health monitoring programs.

What type of medical evaluation should be done?

- Medical evaluation should include the collection of
 1. appropriate medical and job activities information,
 2. a physical exam, and
 3. appropriate testing.

Approaches to these three components of the exam will vary depending upon the anticipated activities, working conditions, and potential exposures of the individual. (See below for further information on when biological monitoring is warranted.)

- The medical evaluation should follow Occupational Safety and Health Administration (OSHA) standards if appropriate. For instance, if the worker is required to handle hazardous material, then the examination should adhere to the OSHA Hazardous waste operations and emergency response standard: (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765).
- If respirator use is required, the examination should adhere to the OSHA respiratory protection standard. (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716)

When should the medical pre-placement evaluation be done?

- Medical evaluation immediately before deployment is optimal.
- Workers who will be performing their usual work and are currently in work-related medical screening programs may not require an immediate pre-exposure medical evaluation. However, the evaluation may have additional benefits, and attempts should be made, prior to or as soon after the deployment date as practicable, to assess for changes in health status that may have occurred in these individuals since their last screening.
- For those already deployed and not in any existing work-related medical screening program, the evaluation should be done as soon as practicable.
- Further evaluation may be necessary during deployment -- for example, depending on results obtained during initial evaluation or if unanticipated hazards are identified during response operations.

Minimum Evaluation Information

The specific types of information elicited may be modified based on anticipated work characteristics and deployment location; however, the following data elements should be obtained for all individuals. Personal information, particularly personal health information, should be collected and maintained consistent with HIPAA and other existing privacy laws.

1. Personal information

Identification and Contact Information

- Name, address, telephone number(s), e-mail addresses (work, personal)
- Age, date of birth, birthplace, sex, social security number
- Contact information for someone who will know where the worker is in 6 months after leaving response work
- Union affiliation: name and local number
- Response organization:
 - Employer vs. volunteer organization (indicate which)
 - Name and address
 - Contact person's name and telephone number

Usual work

- Industry, occupation, job tasks, number of years

Special needs

- Primary language
- Any special assistance required to provide the necessary information

2. Response-related information

This information should be provided by the worker's agency, organization, or employer, if available. If not, inform the worker that this information should be available to him or her.

- Expected deployment location(s) (as specific as possible)
- Anticipated tasks and circumstances under which tasks will be performed.
- Anticipated date of deployment.
- Anticipated duration of deployment
- Anticipated need for, use, and type of PPE

- Adequacy of training for tasks
- Characteristics of expected work locations and relationship to known or suspected hazardous agents or conditions
- Anticipated shift schedules: hours per day, days per week, rotation schedules

3. Medical information

Medical information should include the current health status and a medical evaluation. It should also address all of the medical information that is required by the appropriate OSHA standards.

Current Health Status

- Pre-existing medical and mental health conditions (degree of medical control)
- Relevant lifestyle factors (e.g., tobacco use [smoking or chewing], exercise habits)
- Symptoms currently experienced
- Medications, medication side effects (for example, medicines that increase or block sweating), and other issues related to medications (for example, storage needs such as refrigeration)
- Other specific risk factors (will depend on job, e.g., use of personal protective equipment, exposures)
- Immunization status: routine adult and any special risk (e.g., health care worker)
- Pregnancy status (female workers)
- Assure worker has enough prescription medications to last the expected duration of deployment (with a comfortable safety margin in case of delayed return to home)
- Include question(s) to elicit whether workers have physical or mental health concerns that they would like to be addressed, including lifestyle issues (smoking, drinking, or other substance use)

Medical Evaluation

This should include the history, physical examination and medical testing needed for pre-placement counseling.

History

In addition to the current health status, the history should be directed at identifying specific work-related hazards. For instance, the pre-placement medical evaluation could identify medical and physiological conditions that make adjustment to hot environments more difficult, increasing the need for primary prevention. Evaluations

should consider that response operations tend to be fast paced and dynamic, potentially raising stress levels while participants work long hours and have altered eating and sleeping routines.

- The goal is to enhance awareness, improve worker training, and engage employers in appropriate primary preventive measures.
- Risk factors that can be identified through medical screening include obesity, hypertension, diabetes, heart disease, viral infections, gastroenteritis, anxiety or depression, pregnancy and use of antihistamines, diuretics, beta blockers, anticholinergic agents, tricyclic antidepressants, phenothiazines, ephedrine, and lithium, among others.

Physical Examination

- Height, weight
- Vital signs
- Examination; focused physical examination to those organ systems raised as potential issues based on history and expected work duties is recommended.

4. Additional medical evaluation information needs

Some workers may need more extensive evaluation because of working in hazardous conditions, working with hazards that are covered by specific OSHA standards, or pre-existing medical conditions. Mental health is important. The most common cause of problems with respirator use is claustrophobia. Response-related challenges include uncertainty about the impact of the disaster, threats to livelihood, and quality of life, fatigue and other stressors. Stressors may increase risk for substance abuse, which in turn worsens a variety of health outcomes – for example, alcohol, amphetamines and cocaine are particularly lethal when combined with heat stress. Additional evaluation may include a more comprehensive medical history and review of systems, physical examination, or, in some instances, laboratory testing, as indicated by clinical judgment and good occupational medical practice. The specific content should be determined by the following factors:

- Report of or concern about pre-existing illness, conditions or symptoms that may be adversely affected during deployment
- Use of respirators or exposure to hazards that are regulated by OSHA standards.
- Anticipated tasks, working conditions, locations, or exposures that are known to be hazardous or have specific exposures that may warrant medical monitoring

This additional evaluation may result in:

- Advice to the worker of risk posed by their medical conditions and recommended duty limitations
- Recommendation for further medical evaluation
- Recommendation for specific training prior to deployment

The NIOSH document *Medical Pre-Placement Evaluation Indicators for Health Professionals* (<http://www.cdc.gov/niosh/topics/oilspillresponse/indicators.html>) provides guidance on medical conditions that may indicate a need for further medical attention or for work restrictions or modifications.

5. Exposure monitoring—biological monitoring

Biological monitoring for specific chemicals is not currently recommended for primary care practice, but may be important for research purposes or to assist in exposure assessment. Future guidance should be available to integrate primary care clinicians into prospective surveillance for research purposes.

- Depending on the test characteristics and the exposure(s) being evaluated, results of biological monitoring often cannot answer important issues such as the relationship between a work exposures and reported symptoms, ill health or future illness. Related to oil spill response workers, biological monitoring may not be informative concerning exposure to substances such as polycyclic aromatic hydrocarbons due to potentially multiple routes of exposure to those types of substances.
- When exposures to specific chemical agents can be predicted, actions to minimize or prevent workers' exposure should be conducted regardless of whether biological monitoring is conducted, and should not be delayed until results of biological monitoring are available.
- Before asking for or recommending biological monitoring, health professionals must understand whether the test is being used for clinical purposes or research.
- Additionally, health professionals conducting biological monitoring among workers must be prepared to explain what the testing means, for example answering such potentially difficult questions from workers as: If you have my test results, can you tell me if my results are related to the oil spill? If you have my test results, can you tell me if I will get cancer in the future?

6. Other considerations

The following should all be considered when developing a program for these medical evaluations.

- Simple and concise standardized screening instrument(s)
- Designated custodian for the information collected
- Policies in place to assure confidentiality and security of information collected
- Appointed program administrator
- Clear identification of everyone with access to data results
- Appropriate expertise available for consultation (including psychological)
- Data collection locations convenient to workers (e.g., central location where workers report)
- Private area for conducting evaluations to maintain privacy
- Secure space to maintain records containing confidential information
- Maintain and store records in electronic format when feasible

Follow-Up

The recommended pre-placement evaluation discussed here may require intermittent or periodic follow-up between the health professional(s) and the workers. The content and extent of such follow-up evaluations should be determined by individual circumstances. As with the initial evaluations, the follow-up evaluations are intended primarily for the workers regarding measures they should consider to ensure their safety and health.

As a resource, primary care providers are encouraged to contact their local poison center at 1-800-222-1222 should they have any questions about potential exposures. The poison center hotline is answered 24 hours a day, 7 days a week by trained physicians, pharmacists, and other poison specialists.

For More Information

For more NIOSH information and recommendations for Deepwater Horizon response workers, see <http://www.cdc.gov/niosh/topics/oilspillresponse/>

To receive NIOSH documents or more information about occupational safety and health topics, contact NIOSH at

1-800-CDC-INFO (1-800-232-4636)

TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov

or visit the NIOSH Web site at www.cdc.gov/niosh.