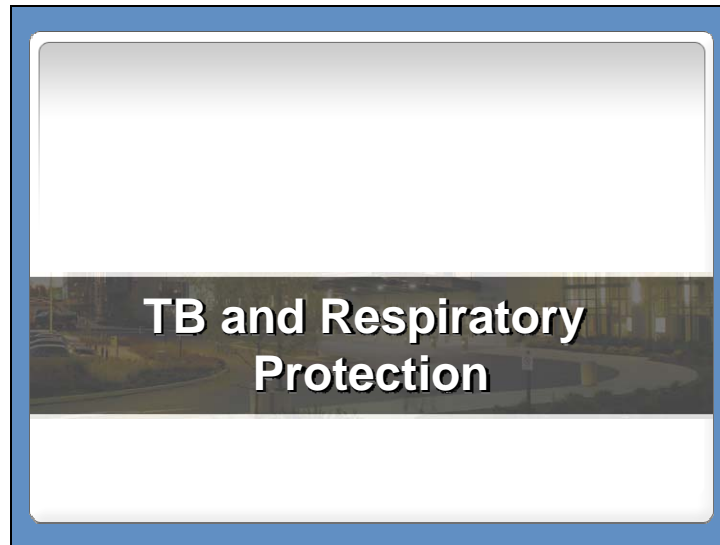



Slide 1



Tuberculosis (TB) is a disease present throughout the United States. Lehigh Valley Health Network is concerned about your health and needs your help to prevent the spread of TB in the workplace.

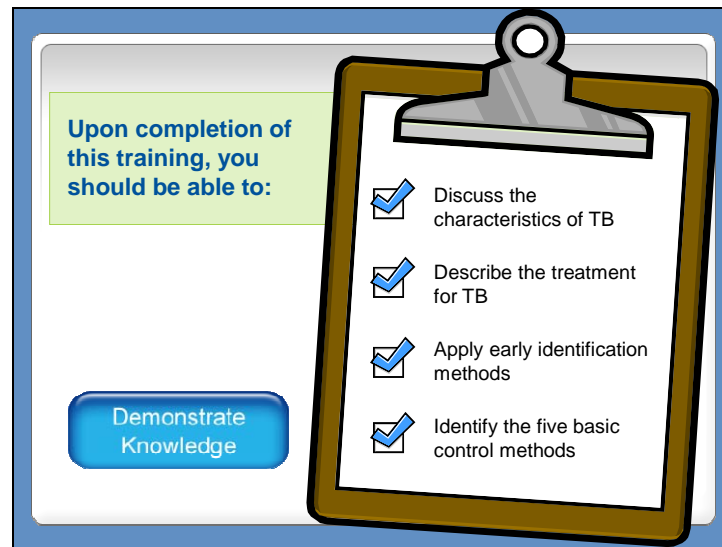
Although the risk is low, your chances of getting infected with TB can be reduced by understanding the ideas presented in this training module.

<b>Course Information</b>	
<b>Course Title:</b>	TB and Respiratory Protection
<b>Regulations/Standards:</b>	TB and Respiratory Protection
<b>Approximate Time to Complete:</b>	15 minutes
<b>Intended Audience:</b>	All Clinical Staff and selected Non-Clinical Staff who may have contact with patients.
<b>Technical Specifications:</b>	Flash Player 9, Internet Explorer 6, Course Contains <b>No Audio</b>  <b>PLEASE REVIEW NOTES TAB FOR MORE COURSE INFORMATION</b>
<b>Date Revised:</b>	May 1, 2013
<b>Contact Information</b>	
Please forward any tuberculosis or respiratory protection questions or concerns to:	Infection Control and Prevention: 484-884-1180
<b>Please call the Help Desk at 610-402-8303 with any technical issues.</b>	

This course fulfills the training requirements for Tuberculosis and Respiratory Protection. The course will take approximately 15 minutes to complete.

If you have any questions, please contact the appropriate number listed here. Remember, all technical issues related to the course or the eLearning System should be directed to the Help Desk at 610-402-8303.

To review the navigational features of the course, click on the Navigation tab at the top of the screen.



Upon completion of this training, you should be able to:

- Discuss the characteristics of Pulmonary Tuberculosis, including how the disease is spread and the risk factors and symptoms associated with TB.
- Describe the treatment for patients with TB.
- Apply the early identification methods used to protect yourself and others from TB.
- Identify the five basic control methods used to prevent the spread of TB to others.

If you feel you have already mastered the content described in the course objectives and would like to demonstrate your knowledge, you may click the “Demonstrate Knowledge” button and move directly to the course test. You must earn a score of at least 80% on the test to successfully pass this course.

However, it is suggested that you review the content as it has been updated. To continue onto the course content, please select the next button located at the bottom of the screen.

Although there has been a steady decline in the number of persons with TB since the early 1990s, TB continues to be a problem in the United States.

Click the Next button to find out more.



**TB is still a problem in the United States!**

- Approximately 9-14 million people are infected with *M. tuberculosis*.
- Over 11,000 people developed TB disease in 2010.

NEXT ▶

Question 1 of 1

Select all the valid reasons why exposure to TB still remains a concern to healthcare professionals in the United States.

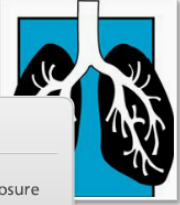
- There are multi-drug resistant types of TB (MDR TB)
- There are extensively drug resistant types of TB (XDR TB)
- Racial and ethnic minority populations or foreign born individuals continue to account for large numbers of TB cases in the U.S.
- Management of patients with comorbidities, such as HIV, diabetes, and other immunocompromising conditions, is difficult



SUBMIT

Question 1 of 1

Select all the valid reasons why exposure to TB still remains a concern to healthcare professionals in the United States.



- There are many drug-resistant strains of TB.
- There are still many cases of multidrug-resistant TB (MDR TB) and extensively drug-resistant TB (XDR TB).
- Racial and ethnic disparities in TB incidence and mortality exist.
- Management of TB in people with HIV, diabetes, and other immunocompromising conditions, is difficult.

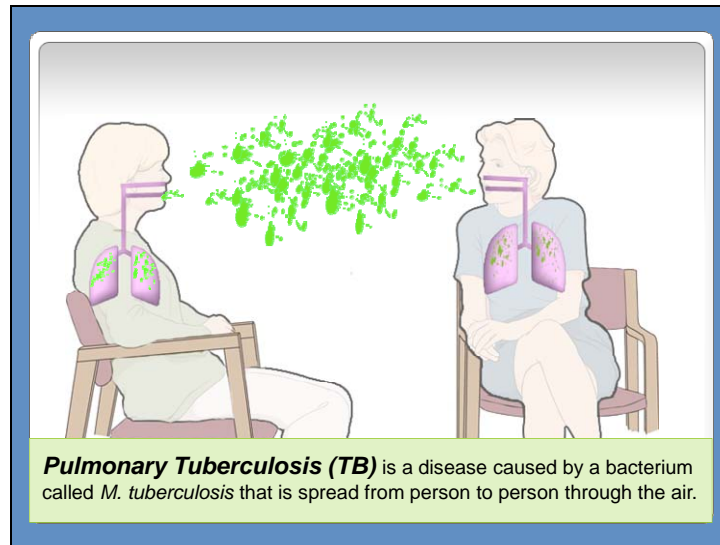
**Correct**

That's right! These are all valid reasons why exposure to TB still remains a legitimate concern in healthcare settings.

Finish    Retry Quiz

SUBMIT

Although your chances of contracting TB are low, you may be surprised at how prevalent cases of TB are. Click the Next button to find out how prevalent TB is.



Pulmonary Tuberculosis (TB) is a disease caused by a bacterium called *M. tuberculosis* that is spread from person to person through the air.

When an individual is infected with active TB disease, tiny particles called droplet nuclei can be spread through coughing or sneezing. You may become infected by breathing in the air surrounding the person with active TB.


After the TB bacteria move through the air, they travel into the lungs. TB infection begins when enough bacteria reach the lungs and multiply.

Inactive vs. Active TB

What is the difference between Inactive and Active TB?

Inactive (Latent) TB Infection

Active TB Disease



*Inactive TB Infection*    *Active TB Disease*


There is a difference between Inactive (Latent) TB Infection and Active TB Disease.

Click the buttons to read the definitions of Inactive (Latent) TB Infection and Active TB Disease.

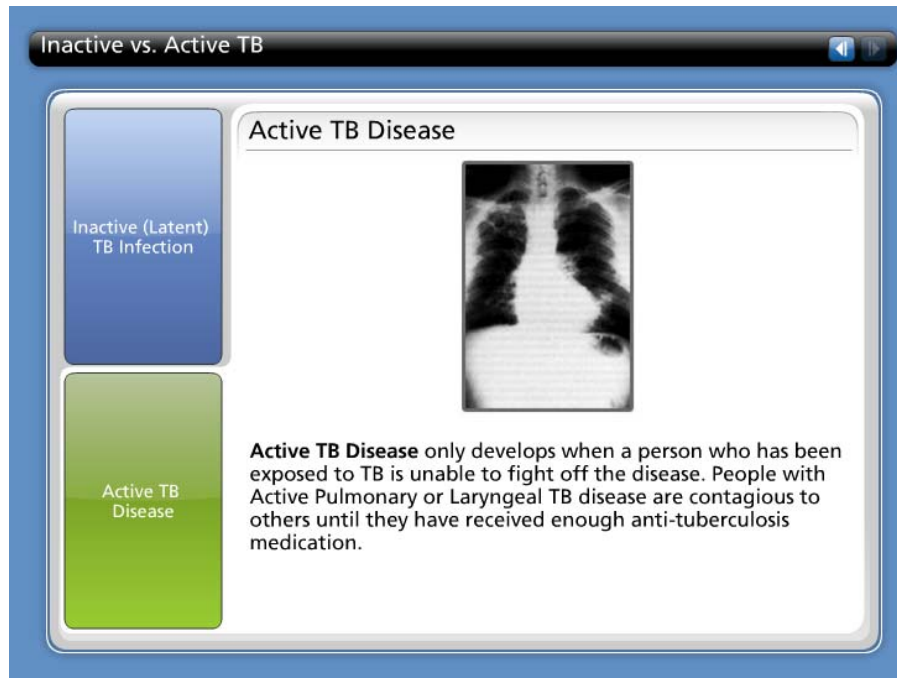
Inactive vs. Active TB

Inactive (Latent) TB Infection

Active TB Disease



A person is considered to have an **Inactive (Latent) TB infection** when they have a positive skin or blood test, but are not contagious. These individuals have no screening symptoms, but remain at risk for developing Active TB Disease.



It is important to understand that there is a difference between Inactive (Latent) TB Infection and Active TB Disease.

Everyday, we breathe in disease-producing bacteria. But, our immune systems work to prevent most diseases from ever developing. Click the buttons to read the definitions of Inactive (Latent) TB Infection and Active TB Disease.

**Inactive (Latent) TB Infection** - A person is considered to have an Inactive (Latent) TB Infection when they have a positive skin or blood test, but are not contagious. These individuals have no screening symptoms, but remain at risk for developing Active TB Disease.

**Active TB Disease** - Active TB Disease only develops when a person who has been exposed to TB is unable to fight off the disease. People with Active Pulmonary or Laryngeal TB Disease are contagious to others until they have received enough anti-tuberculosis medication.




Risk Factors

Characteristics

Health Issues

### Introduction



A variety of risk factors can increase your chances of becoming infected with TB.

Click the Characteristics button and the Health Issues button to learn more about these risk factors.

Risk Factors

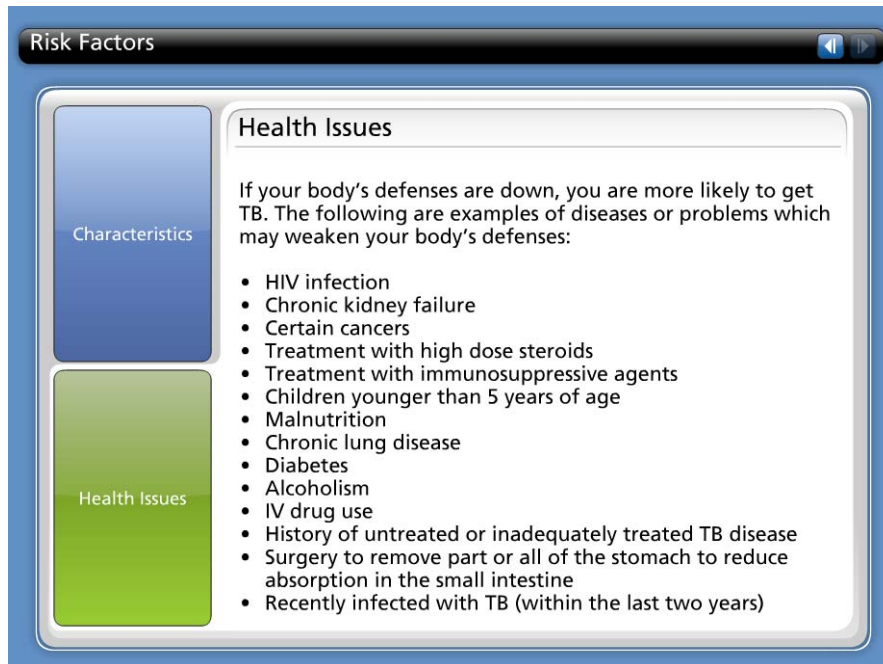
Characteristics

Health Issues

### Characteristics

Certain groups of people have a higher rate of TB infection. These include:

- Homeless persons, medically underserved, low income, persons who abuse drugs or alcohol.
- Residents or employees of long-term care facilities.
- People who have come to the United States within the last five years from areas with a high incidence of TB (for example, Africa, Asia, Eastern Europe, Latin America, and Russia).
- Frequent travelers to countries with a high incidence of TB.
- Healthcare workers and other people with close contact to patients with TB.
- Infants, children, and adolescents exposed to adults at increased risks of infection or disease.



A variety of risk factors can increase your chances of becoming infected with TB. Click the Characteristics button and the Health Issues button to learn more about these risk factors.

**Characteristics:** Certain groups of people have a higher rate of TB infection. These include:

- Homeless persons, medically underserved, low income, persons who abuse drugs or alcohol.
- Residents or employees of long-term care facilities.
- People who have come to the United States within the last five years from areas with a high incidence of TB (for example, Africa, Asia, Eastern Europe, Latin America, and Russia).
- Frequent travelers to countries with a high incidence of TB.
- Healthcare workers and other people with close contact to patients with TB.
- Infants, children, and adolescents exposed to adults at increased risks of infection or disease.


**Health Issues:** If your body's defenses are down, you are more likely to get TB. The following are examples of diseases or problems which may weaken your body's defenses:

- HIV infection
- Chronic kidney failure
- Certain cancers
- Treatment with high dose steroids
- Treatment with immunosuppressive agents
- Children younger than 5 years of age
- Malnutrition
- Chronic lung disease
- Diabetes
- Alcoholism
- IV drug use
- History of untreated or inadequately treated TB disease
- Surgery to remove part or all of the stomach to reduce absorption in the small intestine
- Recently infected with TB (within the last two years)

### Symptoms of TB

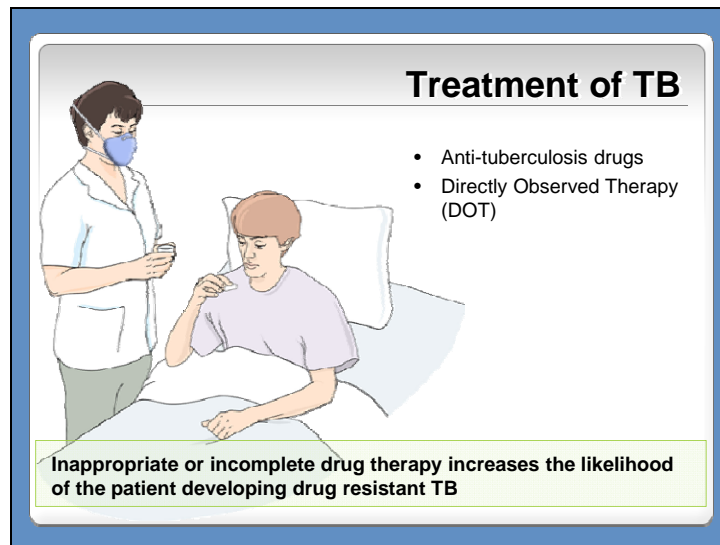
If you are infected with Active TB Disease, you may have some or all of the following symptoms:

- Fatigue
- Fever, night sweats
- Weight loss
- Cough
- Chest pain
- Blood-tinged sputum
- Chest X-ray changes



If you are infected with Active TB Disease, you may have some or all of the following symptoms:

- Fatigue
- Fever, night sweats
- Weight loss
- Cough
- Chest pain
- Blood-tinged sputum
- Chest X-ray changes



Patients with Active TB Disease are treated with an appropriate combination of anti-tuberculosis drugs. Initial therapy includes daily doses of several anti-tuberculosis medications.

Drug sensitivity tests are performed on all tuberculosis patients. After several weeks, the results are available and the drug regime should be adjusted accordingly.

Patients must be directly observed while taking anti-tuberculosis drugs. This is referred to as Directly Observed Therapy, or DOT. It is important to observe patients while taking these medications because inappropriate or incomplete drug therapy increases the likelihood of the patient developing a drug resistant strain of TB.



LVHN is committed to protecting the health and safety of all employees, patients and visitors since TB is an airborne disease that can be transmitted from one person to another, it is important to practice appropriate infection control procedures to protect others from getting TB. The following section will provide you with more detail on how you can protect yourself and others from TB infection.

**TB Exposure Control Plan**

To access the TB Exposure Control Plan from LVHN intranet:

1. Select **Resources**
2. Select **Manuals**
3. Click **Infection Control/Prevention**
4. Click **Section VI – Exposure Control Plan**

Click Here To Review Plan Now

The screenshot shows the Lehigh Valley Health Network intranet interface. The main content area displays a tree view of the 'LVHN Policy and Procedure Manual'. The 'Infection Control/Prevention' section is expanded, showing 'Section VI – Exposure Control Plan' as a clickable link. A blue button with the text 'Click Here To Review Plan Now' is positioned at the bottom right of the screenshot.

Lehigh Valley Health Network has developed a TB Exposure Control Plan for your protection. You can view a complete copy of this plan in the Infection Control and Prevention Manual.

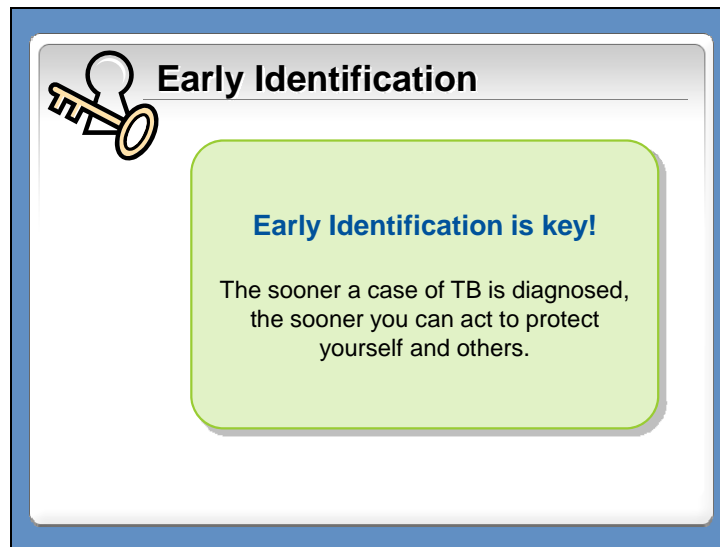
The TB Exposure Control Plan includes information, such as:

- TB screening procedures,
- Identification of individuals with TB,
- Procedures for the care of patients with TB, and
- Respiratory Protection Program



There are two key principles to protect yourself and others from TB infections; early identification and basic control methods.

The next section will provide more detail on each of the key principles.



**Early Identification**

**Early Identification is key!**

The sooner a case of TB is diagnosed, the sooner you can act to protect yourself and others.

Early identification is key! The sooner a case of TB is diagnosed, the sooner you can act to protect yourself and others.


People with Active TB Disease will not always be aware that they have been infected by the disease. It is important to follow the screening procedures to identify infected persons as soon as possible.



### Employee TB Screening

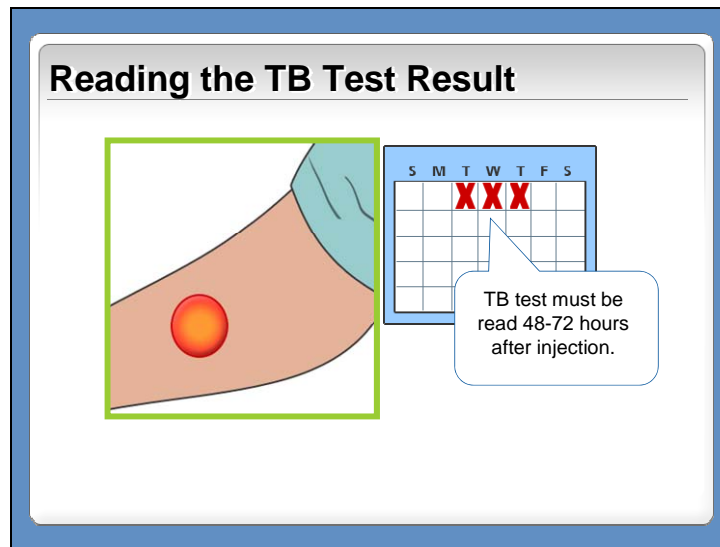
**TB Screenings:**

- Offered free of charge to employees
- Protect the health of our employees and our patients
- Ensure early identification
- Are a condition of employment
- Occur after unprotected exposure to a patient with active TB

An illustration showing a female healthcare worker in a light blue uniform performing a skin test on a male employee. The worker is on the left, and the employee is on the right. The worker is using a small applicator to administer the test to the employee's arm. The employee is looking at the worker with a neutral expression.

Employee Health Services offers Tuberculosis screenings free of charge for employees. The screenings protect the health of our employees and our patients. This testing helps to ensure early identification of changes in TB status and provides those infected with quick medical treatment. Because of the health impacts associated with TB, these screenings are a condition of employment at LVHN.

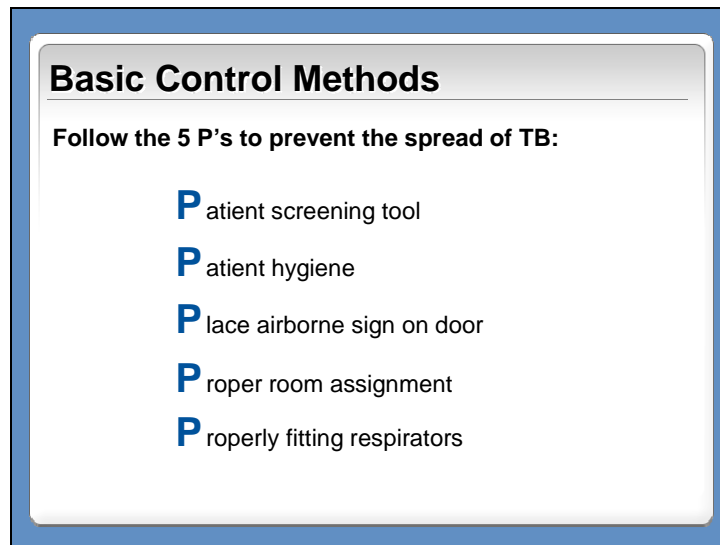
Screening is performed by one of two methods; Mantoux Tuberculin Skin Tests or Quantiferon TB Gold Test. All employees are first screened for TB before starting work at LVHN. Employees in certain departments will be screened annually or biannually thereafter. Employees are also screened following unprotected exposure to a patient with active TB.



The TB skin test must be read 48-72 hours after injection. The results must be read by an employee health nurse or other designee.

A negative test result shows no visible swelling or discoloration after 72 hours.

This is an example of a **potentially** positive skin test. Redness alone does not indicate a positive test, a skin test must always be read by a trained professional such as an employee health practitioner. Staff properly identified with a positive skin test may be monitored or put on medication.



**Basic Control Methods**

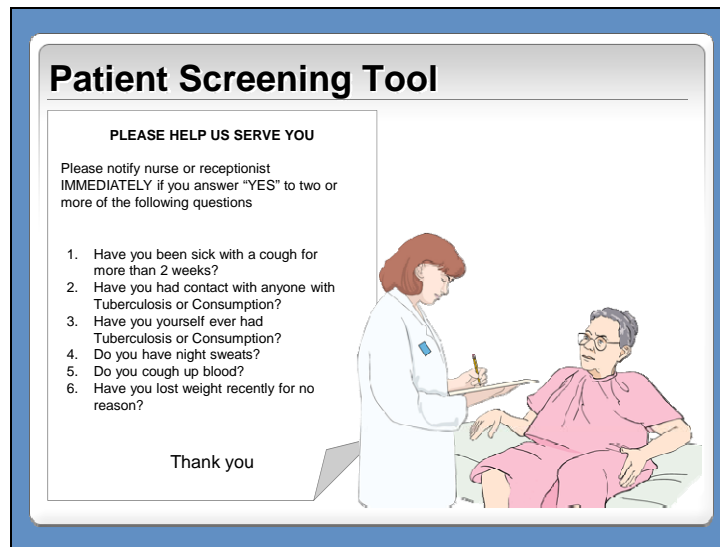
Follow the 5 P's to prevent the spread of TB:

- P**atient screening tool
- P**atient hygiene
- P**lace airborne sign on door
- P**roper room assignment
- P**roperly fitting respirators

Once someone has been identified as being infected with active TB disease, how can you prevent the spread of the disease to others?

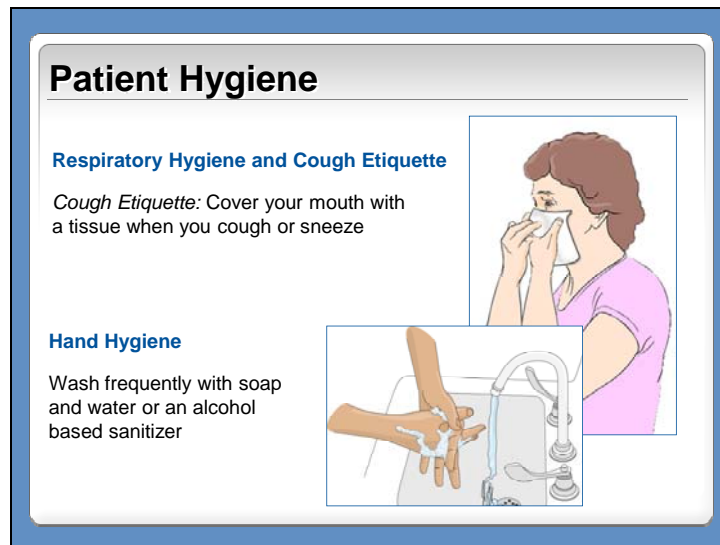
Following some basic control methods will help prevent the spread of TB. To help you remember, think of the 5 P's:

- Patient TB screening tool
- Patient hygiene
- Place airborne isolation sign on door
- Proper patient room assignment
- Properly fitting respirators



Screening tools have been developed for use throughout LVHN to help identify patients that may have TB. This screening tool is another form of early identification. The other control methods will not be effective if infected patients are not identified early. Be sure to use this handy screening tool during patient registration.

Once Active TB Disease is diagnosed in a patient, appropriate therapy should begin immediately. Active TB is identified in patients through history, physical exam, chest x-ray, Tuberculin skin test or Quantiferon Gold Test and bacteriological examination.



Remember that TB is a disease that is spread through the air. To prevent the spread of TB, it is important to explain “Respiratory Hygiene and Cough Etiquette” to any patients whose illnesses are associated with airborne transmission.

Cough Etiquette simply means instructing your patient to cover their mouth with a tissue when they cough or sneeze. Special Cough Etiquette stations are located in common waiting areas. These organizers hold tissues, masks, hand sanitizers, and signs for cough etiquette. For more information, click the Attachments tab above to view the “Cover Your Cough” poster.


Another important hygiene rule to follow is to wash your hands frequently. Instruct your patients to properly wash with soap and water or an alcohol based hand sanitizer.

**Surgical Masks**

Patients with diseases like TB should be encouraged to wear surgical masks.

Patients with suspected or confirmed TB Disease should always wear a surgical mask while outside of the designated isolation room.

Speak with a physician if you are not sure the patient can safely wear a surgical mask.

An illustration of a patient lying in a hospital bed, wearing a blue surgical mask and a white cap. The patient is wearing a light blue hospital gown and is covered with a white blanket. The bed has a metal frame and a headboard.

Patients infected with diseases transmitted through the air, like TB, should be encouraged to wear surgical masks. Surgical masks limit the number of contaminated bacteria released into the air by the patient.

Patients with suspected or confirmed active TB Disease should always wear a surgical mask (not a respirator/N-95 mask) while outside of designated isolation rooms. This includes waiting rooms, treatment rooms, and during transport or ambulation. Visitors will be instructed on the use of the N-95 respirator mask worn by the healthcare workers.

Please note that not all patients will be able to tolerate wearing a surgical mask. Speak with a physician if you are not sure if the patient can safely wear a surgical mask.

**Place an Airborne Isolation Sign**


<p><b>AIRBORNE PRECAUTIONS</b> (In addition to Standard Precautions)</p> <p><b>1. Private Room</b></p> <ul style="list-style-type: none"><li>• Negative Pressure Isolation Room</li><li>• Keep the room door closed</li><li>• Assure air monitor (alarm) is activated</li></ul> <p><b>2. Respiratory Protection</b></p> <ul style="list-style-type: none"><li>• Wear an N95 respirator mask or PAPR</li></ul> <p><b>3. During transport, place a surgical mask on the patient.</b></p>	<p><b>PRECAUCIONES POR INFECCIONES AEROTRANSPORTADAS</b> (Además de precauciones normales)</p> <p><b>1. Cuarto Privado</b></p> <ul style="list-style-type: none"><li>• Presión negativa en el cuarto aislado</li><li>• Mantenga la puerta del cuarto cerrada</li><li>• Asegúrese de que el monitor de aire (la alarma) este activada.</li></ul> <p><b>2. Protección Respiratoria</b></p> <ul style="list-style-type: none"><li>• Póngase una mascarera respiratoria N95 o PAPR</li></ul> <p><b>3. Durante el transporte, póngale una mascarera quirúrgica al paciente.</b></p>
--	--

Click the Attachments link above to download a copy of the Airborne Precautions Isolation sign.

Place an Airborne Isolation Sign on the door for patients who have suspected or confirmed TB. Place this sign on the door immediately to alert staff to use special precautions.

### Proper Room Assignment

1. The door to the precaution or isolation room must be kept closed
2. An airborne precaution sign must be placed on the door
3. Airborne precautions should be discontinued only when the patient is on effective therapy, is clinically improving, and has had a negative sputum exam for 3 days in a row.



The illustration shows a person with short blonde hair, wearing a blue short-sleeved shirt, standing in profile to the left of a light brown door. The person's right hand is on the door handle, and their left hand is pressed against the door, indicating it is closed. A pink sign with black text is posted on the door. The sign reads: 'AIRBORNE PRECAUTIONS' followed by several lines of smaller text, including 'Patient with suspected or confirmed TB', 'Wear mask and gown', 'Wear N95 respirator or equivalent', 'Wear gloves', and 'Wash hands with soap and water'. The entire scene is framed within a blue border.

Proper placement of patients with suspected or confirmed TB will help to prevent exposure to others. These patients should be placed in a room with negative air flow. LVHN has numerous airborne isolation rooms that are designated to safely house patients on airborne precautions.

It is important to remember the following points for patients who are on airborne precautions or in an isolation room:

- The door to the precaution or isolation room must be kept closed.
- An airborne precaution sign must be placed on the door.
- Airborne precautions should be discontinued only when the patient is on effective therapy, is clinically improving, and has had a negative sputum exam for tubercule bacilli for three days in a row. Precautions are discontinued on a case by case basis at the physician's discretion.



Properly Fitting Respirators

Medical Clearance

Training Requirement

Proper Fit


### Introduction

Respiratory protection is required to help protect you from diseases spread through airborne contaminants such as:

- TB
- Chicken Pox
- Measles

"N-95 respirators" are the primary type of respiratory protection used at LVHN.

There are three requirements for using respiratory protection. Click each button to learn more.



Properly Fitting Respirators

Medical Clearance

Training Requirement

Proper Fit

### Medical Clearance

Employees must receive medical clearance to use a respirator from LVHN Employee Health Services.

Some people have medical conditions that may prevent them from safely using respiratory protection. Examples of conditions that may cause problems when using a respirator are asthma, heart disease, and claustrophobia.

If your job requires that you wear a respirator, you must first complete a "Respirator User's Medical Surveillance Form". LVHN Employee Health Services will decide whether or not you are permitted to use a respirator.

If you experience any difficulty when wearing a respirator, promptly report the condition to Employee Health Services.

Periodic medical evaluation is also required. A "Medical Questionnaire for Continued Respirator Use" is completed during annual fit testing.

Medical Clearance


Training Requirement

Proper Fit

### Training Requirement

Federal law requires that employees who must use respiratory protection receive training. Employees are required to take training prior to wearing a respirator. After that, employees must receive training each year.

This training module meets the annual training requirement. N-95 users also receive hands-on respiratory protection training each year at their mandatory annual fit test.



Properly Fitting Respirators
◀ ▶

Medical Clearance


Training Requirement

Proper Fit

### Proper Fit

Respirators only provide protection when they are properly fitted to the individual. For this reason, the government requires that all personnel permitted to use N-95 respirators receive an initial fit test. Employees must be properly fitted before they are assigned tasks using N-95's. In addition, annual fit tests are required to determine if the same type of mask provides adequate protection.

During fit tests and hands-on training, you will learn how to properly wear a respirator. You will also learn how to perform a user check. Perform a user check each time you wear a respirator to ensure you have a good fit.



Play Again

Patients infected with illnesses such as TB, Chickenpox, and other emerging infectious diseases can spread bacteria through the air. Respiratory protection is required to help protect you from diseases spread through airborne contaminants.

“N-95 respirators” are the primary type of respiratory protection used at LVHN.


There are three requirements for using respiratory protection. Click each button to learn more.

**Respiratory Protection**

- Always wear the same model, brand, and size respirator that you wore during fit testing
- Never share your respirator

You may wear your N-95 for an entire work shift, unless told otherwise by your supervisor.

Dispose of your N-95 into a regular waste basket.




Always wear the same model, brand, and size respirator that you wore during fit testing. Failure to do so could reduce the level of protection provided by the respirator.

Never share your respirator. N-95's are only intended to be used by one person. Store your labeled respirator in a secure location so that no one else will accidentally use it.

You may use your N-95 respirator for an entire work shift unless told otherwise by your supervisor. At the end of your shift, throw away your N-95 into a regular waste basket. N-95's do not go into the red bag waste.

**Powered Air Purifying Respirator (PAPR)**



If you are unable to wear a N-95 Respirator, you must wear a PAPR.

**After Each Use:**

**Disinfect**

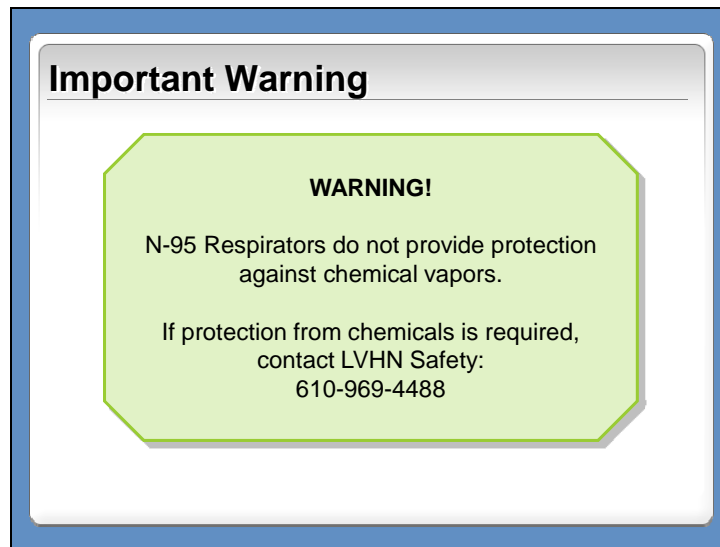
- Air Filter Unit
- Breathing Tube

**Store Carefully**

**Do Not Share Hoods**

Employees who are unable to be fitted to wear a N-95 Respirator are trained in the use of the Powered Air Purifying Respirator (PAPR).

When using a PAPR you must remove the hood after use, disinfect, and store in a safe place. Never share your hood. Disinfect the air filter unit and breathing tube after each use.




N-95 Respirators do not provide protection against chemical vapors. Never assume an N-95 will provide any protection against chemical odors, gases, or vapors.

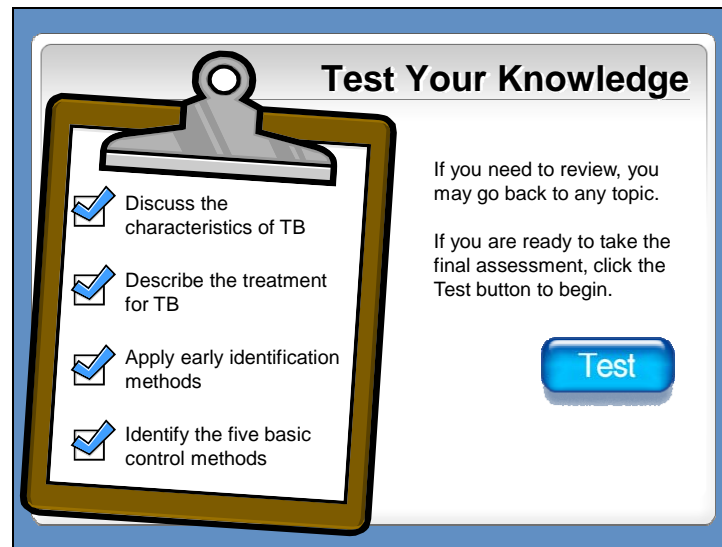
If protection from chemicals is required, contact LVHN Safety at 610-969-4488 for specific information.

**Questions?**

- Respiratory Protection Program – 484-884-1180
- Safety Department - 610-969-4488

An illustration of a male healthcare worker with short brown hair, wearing green scrubs and a stethoscope. He is sitting at a desk, talking on a black corded telephone. On the desk in front of him is a white notepad and a black pen. The entire illustration is set within a white rectangular frame with a blue border.

If you have any questions about respiratory protection, please contact the Respiratory Protection Program or the Safety department.



**Test Your Knowledge**

- Discuss the characteristics of TB
- Describe the treatment for TB
- Apply early identification methods
- Identify the five basic control methods

If you need to review, you may go back to any topic.

If you are ready to take the final assessment, click the Test button to begin.

[Test](#)

Thank you for participating in the TB and Respiratory Protection course.

You should now be able to:

- Discuss the characteristics of Pulmonary Tuberculosis, including how the disease is spread and the risk factors and symptoms associated with TB,
- Describe the treatment for patients with TB,
- Apply the early identification methods used to protect yourself and others from TB, and
- Identify the five basic control methods used to prevent the spread of TB to others.

If you need to review, you may use the outline panel to move to any topic.

If you feel prepared to take the final assessment, click the Test button to begin. You must earn a score of at least 80% to successfully pass this course. Good luck.

## Slide 28 TB Final Test

1. Early identification is key to the prevention and control of the spread of TB. Which of the following would make you consider that your patient could have TB disease? Choose all that apply.

Correct	Choice
X	fever with night sweats
X	unexpected weight loss
	a sudden onset of a severe headache
X	known contact with a person who has active TB

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. Fever with night sweats, unexpected weight loss, and known contact with a person who has active TB are all signs that your patient may have TB.

2. You can decrease the likelihood of getting TB by wearing an N-95 respirator. In order to use this respirator, which of the following is required? Select ALL of the requirements.

Correct	Choice
X	Completion of medical screening through Employee Health
	Instruction from your co-workers on how to use the respirator
X	Formal training on how to use it and annual fit testing to determine your size

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. To use the N-95 respirator, you must complete a medical screening through Employee Health and participate in formal training on how to use it and annual fit testing to determine your size.

3. Your fit testing indicated that your respirator size is "small"; but you are not able to locate your size. You may use a "regular" size until your size can be found. True or False?

*(True/False Question, 10 points, 1 attempt permitted)*



Correct	Choice
	True
X	False

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. You must wear the respirator size that was indicated during fit testing.

**4. Users of the N-95 respirator are fit tested:**

*(Multiple Choice Question, 10 points, 1 attempt permitted)*

Correct	Choice
	Every 2 years
X	Every year
	It depends on the direction of the manager of your department

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. Fit testing occurs annually.

**5. A serious risk for the development of drug resistant TB is failure of the patient to complete a full course of drug therapy. True or False?**

*(True/False Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	True
	False

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. Failure to complete a full course of drug therapy may result in the development of drug resistant TB.

**6. Persons with an increased risk of developing TB infection are which of the following (select ALL that apply):**

*(Multiple Response Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	Persons with known HIV infection
X	Homeless persons
X	Health care workers who have close contact with patients with active TB disease while not wearing a respirator
X	Persons with certain cancers

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. These are ALL examples of persons with an increased risk of developing TB infection.

**7. You can become infected with active TB disease by breathing in the air surrounding a person with active TB. True or False?**

*(True/False Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	True
	False

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. TB is a disease that is spread through the air. You can become infected by breathing in the air surrounding a person with active TB.

**8. There is a difference between Inactive(Latent)TB Infection and Active TB Disease. Use the drop down menus to select the correct descriptions of Inactive TB Infection and Active TB Disease.**

*(Matching Drop-down Question, 10 points, 1 attempt permitted)*

Correct	Choice
Inactive(Latent) TB Infection	Positive skin test, but not contagious to others
Active TB Disease	Contagious to others

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. A person with an Inactive (Latent) TB Infection will have a positive skin test, but will not be contagious to others. A person with Active TB Disease is contagious to others.

**9. To ensure early identification of changes in TB status, Employee Health Services offers Tuberculosis screenings free of charge for employees. When are employees screened for TB?**

*(Multiple Response Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	Upon hire, prior to the start of employment
X	Annually for employees of certain departments at risk of exposure
X	Following an unprotected exposure to an actively infected TB patient
	Annually for all employees

Feedback when correct: That's right! All employees are no longer screened annually for TB. Employees are screened for TB upon hire, annually for employees of certain departments at risk of exposure, and following an unprotected exposure to an actively infected TB patient.

Feedback when incorrect: I'm sorry, but all employees are no longer screened annually for TB. Employees are screened for TB upon hire, annually for employees of certain departments at risk of exposure, and following an unprotected exposure to an actively infected TB patient.

**10. To control the spread of airborne diseases like TB, it is important to instruct your patients on proper hygiene. Select the patient hygiene rules that you should teach your patients (select ALL that are correct):**

*(Multiple Response Question, 10 points, 1 attempt permitted)*

Correct	Choice
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X	Cover your mouth with a tissue when you cough or sneeze
	Cover your mouth with your hands when you sneeze or cough
X	Wash your hands frequently with soap and water or an alcohol based hand sanitizer

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. You should teach your patients to cover their mouths with a tissue when they cough or sneeze and to wash their hands frequently.

**11. Patients with suspected or confirmed Active TB Disease should always wear a \_\_\_\_\_ mask while outside of the designated isolation room.**

*(Multiple Choice Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	Surgical
	N-95 respirator
	No mask required

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. Patients with suspected or confirmed TB should wear surgical masks.

**12. Proper placement of patients with suspected or confirmed TB will help to prevent exposure to others. Which of the statements below are true? Select ALL that are correct.**

*(Multiple Response Question, 10 points, 1 attempt permitted)*

Correct	Choice
X	Patients with suspected or confirmed TB should be placed in a room with negative air flow
X	The door to the precaution or isolation room must be kept closed
X	An airborne precaution sign must be placed on the door

Feedback when correct: That's right! You selected the correct response.

Feedback when incorrect: Incorrect. All of these statements are true.

## **Congratulations!**

**You have successfully completed the TB and Respiratory Protection course.**

If you have any Tuberculosis or Respiratory Protection questions or concerns, please contact:  
**Infection Control at 484-884-1180**