

#### What Need to Know About Tuberculosis

# What You leec toknow Tuberculosis



#### **What's Inside**

This flipbook has three sections:

#### **TB Testing**

Panel A1

#### **Latent TB Infection**

Panel B1

#### **TB Disease**

Panel C1

Each section covers basic information from the other sections, so it is only necessary to use the one section that corresponds to the educational needs of your patient.

## How to use this flipbook: Instructions for the healthcare professional



This flipbook is intended to be a tool to assist the TB patient education process with English-speaking TB patients and their family members. Sitting across from one and other, or side by side, black and white panels such as this one are to be viewed by the healthcare professional, while color panels are to be viewed by the patient.

Healthcare professionals are encouraged to read the text on the black and white provider panels to the patient, taking care to tailor the information to the needs of each patient as appropriate. Although this language may seem very basic, it was carefully developed according to health literacy principles and closely follows the language used in the 2005 Centers for Disease Control and Prevention series of six English TB patient education materials. These corresponding patient materials can be ordered from CDC at:

#### http://www2.cdc.gov/nchstp od/piweb/tborderform.asp

It is recommended that appropriate materials from this series be provided to the patient to reinforce the patient education process. TB TESTING

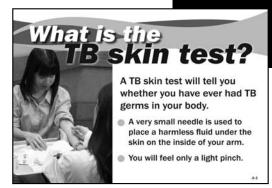
# TB Testing





A TB skin test will tell you if you have ever had TB germs in your body.

- A very small needle is used to place a harmless fluid under the skin on the inside of your arm.
- You will feel only a light pinch.



**A.1** 

#### What is the TB skin test?

- A TB skin test will tell you whether you have ever had TB germs in your body. It is one of the tests used to help diagnose TB infection and TB disease.
- A **very small needle** is used to place a harmless fluid under the skin on the inside of your arm.
- You will feel only a light pinch.



# How do get the results?

#### Come back in 2-3 days.

- Any bump that may appear on your arm will be measured.
- Only a healthcare provider can read your result correctly.





#### How do I get the results?

- You must come back to the office 2-3
  days after the fluid is placed.
- Your healthcare provider will tell you
   exactly when to come back to the office
   to have your skin test result read.
- At that time, a healthcare provider will look at the test spot and measure any bump that may appear there.
- A healthcare provider is the only person who can read your result correctly. It is important to come back, even if you see nothing on your arm.

# What does my skin test result mean?

#### If your skin test is:

#### **Positive**

You have TB germs in your body, or

You had TB germs in your body in the past.

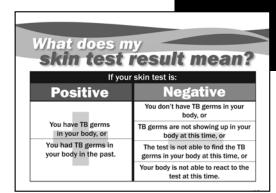
### Negative

You don't have TB germs in your body, or

TB germs are not showing up in your body at this time, or

The test is not able to find the TB germs in your body at this time, or

Your body is not able to react to the test at this time.





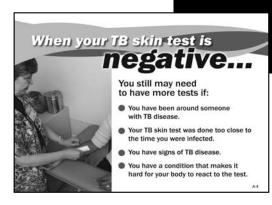
#### What does my skin test result mean?

- If your TB skin test is **positive**, it means you currently have TB germs in your body or you have had TB germs in your body in the past.
- If your TB skin test is **negative**, it means you do not have TB germs in your body, or the test is not able to find the TB germs in your body at this time, or your body is not able to react to the test at this time.



# You still may need to have more tests if:

- You have been around someone with TB disease.
- Your TB skin test was done too close to the time you were infected.
- You have signs of TB disease.
- You have a condition that makes it hard for your body to react to the test.





#### When your TB skin test is negative...

Sometimes, even when your TB skin test is negative, you may need to have more tests to find out if you have TB infection or TB disease. You still may need to have more tests if:

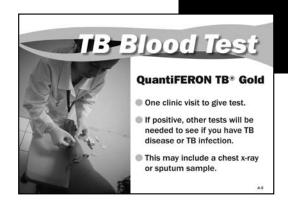
- You have been around someone with TB disease.
- Your TB skin test was within 2 weeks of your exposure to TB.
- You have signs of TB disease like coughing, chest pain, fever, weight loss, or tiredness.
- You have a condition that makes it hard for your body to react to the test.



#### **QuantiFERON TB® Gold**

- One clinic visit to give test.
- If positive, other tests will be needed to see if you have TB disease or TB infection.
- This may include a chest x-ray or sputum sample.

**TB Blood Test** 



# • There is a new blood test used for the diagnosis of TB disease.

# **A.5**

• The blood test, called **QuantiFERON TB® Gold**, is easier to use for a lot of reasons, but most importantly, you will not have to return to the clinic or office to get your results.

#### Note to healthcare professional:

Skip this panel if your healthcare facility is not using this test.

• If your blood test result is positive (you have TB germs in your body) you will need other tests like a chest x-ray or a test of your sputum to see if you have TB disease or TB infection.



## **TB Infection**



# What is TB?

ZZ

#### **TB Infection**

- Dormant (sleeping) TB germs in your body.
- Will not feel sick.
- CANNOT pass these germs to others.
- Need to take TB medicine to kill TB germs in your body.

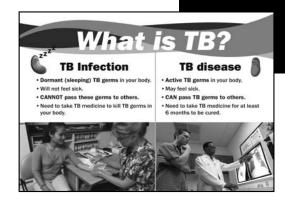
#### **TB** disease



- Active TB germs in your body.
- May feel sick.
- CAN pass TB germs to others.
- Need to take TB medicine for at least
   6 months to be cured.







B.1

#### What is TB?

TB is a short name for tuberculosis. TB is a disease that usually affects the lungs, but sometimes affects other parts of the body.

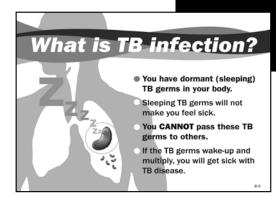
I am going to briefly describe TB infection and disease, and then discuss TB infection in more detail.

- **TB infection** means you have only dormant (inactive) TB germs in your body.
- This means the TB germs are sleeping, so they are not making you sick and you cannot pass them to anyone else.
- If you don't take medicine to kill the TB germs now, you can get sick with TB disease in the future.
- If you get sick with TB disease, you can pass TB germs to others.
- If you have TB infection you will need to take TB medicine to kill the TB germs in your body.
- **TB disease** means you have active TB germs in your body that can make you and others around you very sick.
- You may: cough, lose weight, feel tired, have a fever, chills, or have night sweats until you get treatment.
- If you have TB disease you will need to take several TB medicines correctly for at least 6 months to be cured.

# What is TB infection?

- You have dormant (sleeping)TB germs in your body.
- Sleeping TB germs will not make you feel sick.
- You CANNOT pass these TB germs to others.
- If the TB germs wake-up and multiply, you will get sick with TB disease.





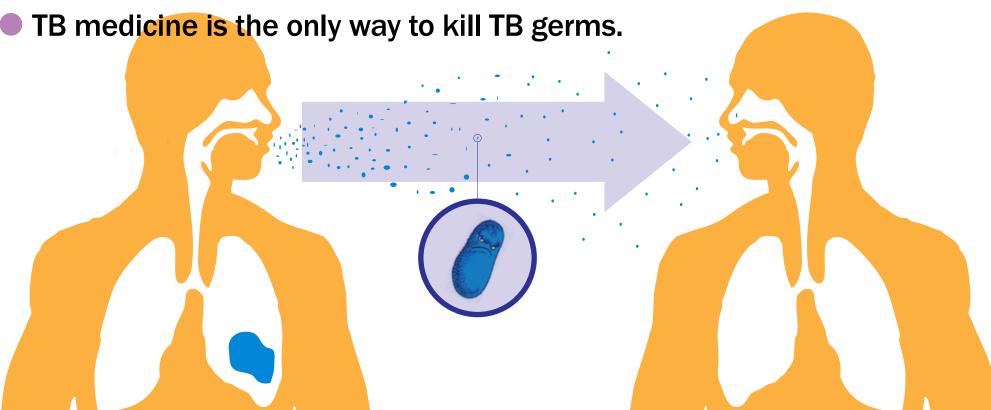
# **B.2**

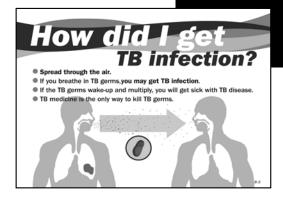
#### What is TB infection?

- Just to review the last panel, TB infection means you have only dormant (inactive)TB germs in your body.
- One way to understand this is to think of the TB germs as "sleeping".
- Since the TB germs are asleep, they are not making you sick and you cannot pass these TB germs to anyone else.
- If the TB germs "wake-up" and multiply, you will get sick with TB disease.



- Spread through the air.
- If you breathe in TB germs, you may get TB infection.
- If the TB germs wake-up and multiply, you will get sick with TB disease.







#### How did I get TB infection?

- TB germs are spread through the air when a person with TB disease (point to figure with TB disease on patient panel) coughs, laughs, sings, or sneezes.
- If you breathe in TB germs, you may get **TB** infection. This means you have dormant (sleeping), TB germs in your body.
- Treatment with TB medicine is the only way to kill TB germs.



- TB germs are very strong, even when they are dormant (sleeping).
- Sleeping TB germs can wakeup and make you sick.
- The only way to get rid of TB germs is by taking TB medicines.



**B.4** 

## But why should I take medicine if I don't feel sick?

- Even though the TB germs in your body are dormant (sleeping), they are very strong.
- Many germs are killed shortly after you start taking your medicine, but some stay alive in the body for a long time. It takes longer for them to die.
- As long as you have TB germs in your body, they can wake-up, multiply, and make you sick with TB disease.
- The only way to get rid of TB germs is by taking TB medicines.

# You are more likely to develop TB disease if you have TB infection and...



- HIV infection or
- Other health problems or
- You have recently been infected with TB germs or
- You were not treated correctly or did not complete treatment for TB infection in the past.

# You are more likely to develop TB disease if you have TB infection and... HIV infection or Other health problems or You have recently been infected with TB germs or You were not treated correctly or did not complete treatment for TB infection in the past.



# Some people with TB infection are more likely to develop TB disease

### Once you have TB infection, you have a higher chance of getting TB disease if you:

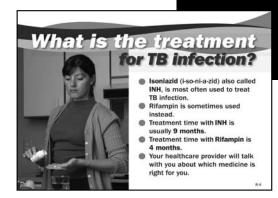
#### Have HIV infection

When your body is busy fighting against other infections or diseases it may lose some of its ability to keep the TB germs dormant (sleeping).

- Have other health problems
   Other health problems may make it hard for your body to fight TB germs.
- Have been recently infected with TB
   This is because you will have the most TB germs in your body during the first few years after you have been infected.
- Were not treated correctly for TB in the past
  If you did not receive the right number of doses of TB
  medicine or did not take all of your TB medicine in the past,
  all of the TB germs many not have been killed.



- Isoniazid (i-so-ni-a-zid) also called INH, is most often used to treat TB infection.
- Rifampin is sometimes used instead.
- Treatment time with INH is usually 9 months.
- Treatment time with Rifampin is 4 months.
- Your healthcare provider will talk with you about which medicine is right for you.



# **B.**6

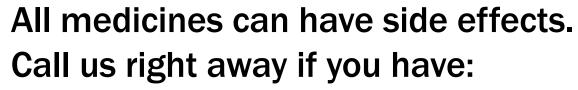
#### Note to healthcare professional:

If your patient has a disease or circumstance that requires an alternate treatment plan, please use this opportunity to discuss the alternate plan or to mention that the healthcare provider will discuss the plan with the patient.

#### What is the treatment for TB infection?

- There are a few different medicines used to treat TB infection the right way.
- The treatment plan you receive will be made to fit your specific needs.
- Isoniazid, also called INH, is a medicine most often used to treat TB infection.
- Another medicine, Rifampin, is sometimes used instead.
- INH is usually taken for 9 months to correctly treat and kill all of the TB germs in your body. It can be taken daily or a few times a week.
- Treatment with Rifampin is 4 months. Rifampin must be taken daily.
- Your healthcare provider will talk to you about which medicine is right for you.





- Nausea, stomach ache or stomach cramps.
- Less appetite or no appetite for food.
- Vomiting.
- Yellow skin or yellow eyes.
- Dark urine.
- Light colored stools.
- Aches or tingling in your toes or fingers.
- A fever.

Most people can take their TB medicines without any problems.



**B.**7

Most people can take their TB medicines without any problems.

#### Does the medicine have any side effects?

- Like all medicines, the medicine you take for TB infection can have side effects.
- If you have:
  - Nausea or stomach aches or cramps, or
  - Less appetite or no appetite for food, or
  - Vomiting, or
  - Yellow skin or eyes, or
  - Dark urine, or
  - Light colored stools, or
  - Aches or tingling in your fingers or toes, or
  - A fever...
- You should tell us (indicate a specific person and/ or phone number) right away.
- Most people can take their TB medicine without any problems and will not need to be treated ever again.

# Take steps to remember to take your pills



Always take your full dose of medicine even though you are feeling good.

#### Tips:

- Take your medicine at the same time every day.
- Keep medicine in one place.
- Use a pillbox. Put one week's worth of pills in the box.
- Write yourself a note.
- Use a calendar.
- Ask a family member or friend to help you remember.

#### Take steps to remember to take your pills



Always take your full dose of medicine even though you are feeling good.

#### Tips:

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- Ask a family member or friend to help

**B.8** 

#### Take steps to remember to take your pills

- Taking medicine every day can be a challenge. Remind yourself that you are staying on the medicine to kill all the TB germs.
- Remember to always take your full dose of medicine, even though you are feeling good.
- To help you remember to take the medicine, try some of these tips:
  - Take your medicine at the same time every day.
  - Keep your medicine in one place, where you can't miss it.
  - Use a pillbox. Put one week's worth of pills in the box.
  - Write yourself a note and put it someplace you see often, like the bathroom mirror or refrigerator door.
  - Use a calendar to check off the days you have taken your medicine.
  - Ask a family member or friend to help you remember.



C

## TB Disease



# What-IS IB?

ZZ

### **TB Infection**

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- Will not feel sick.
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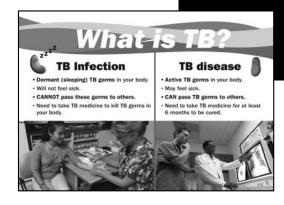
#### **TB** disease



- Active TB germs in your body.
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## **G.1**

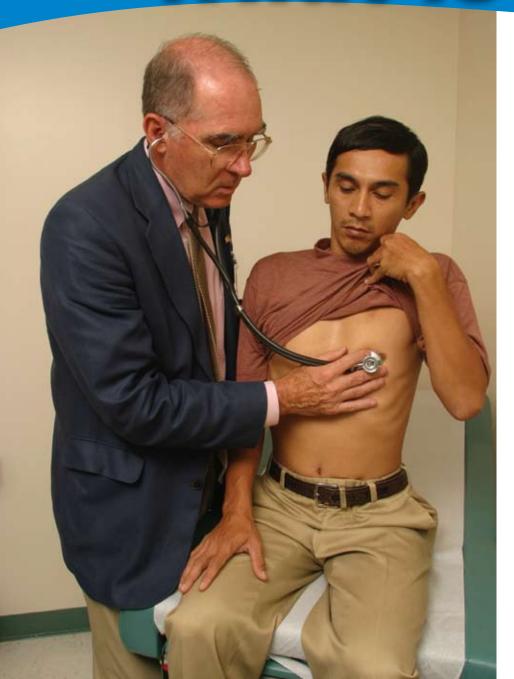
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I am going to briefly describe TB infection and TB disease, and then discuss TB disease in more detail.

- TB infection means you have only dormant (inactive) TB germs in your body.
- This means the TB germs are sleeping, so they are not making you sick and you cannot pass them to anyone else.
- If you don't take medicine to kill the TB germs now, you can get sick with TB disease in the future.
- If you get sick with TB disease, you can pass TB germs to others.
- If you have TB infection you will need to take TB medicine to kill the TB germs in your body.
- **TB disease** means you have active TB germs in your body that can make you and others around you very sick.
- You may: cough, lose weight, feel tired, have a fever, chills, or have night sweats until you get treatment.
- If you have TB disease you will need to take several TB medicines correctly for at least 6 months to be cured.

### What is TB disease?



- Large number of TB germs in your body.
- Usually in the lungs, but can show up in other parts of the body.
- TB germs are "awake" and may be making you feel sick.
- TB disease can be cured with medicine!

#### What is TB disease?



- Large number of TB germs in your body.
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0.2

**G.2** 

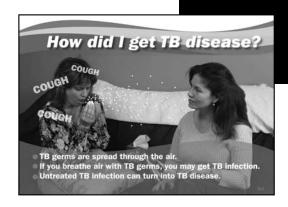
#### What is TB disease?

- TB disease means you have a large number of TB germs in your body.
- These germs are usually in the lungs, but sometimes can show up in other parts of the body.
- These germs are no longer "sleeping".
- These germs are "awake" and have multiplied, and may be causing you to feel sick.
- TB disease can be cured with medication.

### How did I get TB disease?



- TB germs are spread through the air.
- If you breathe air with TB germs, you may get TB infection.
- Untreated TB infection can turn into TB disease.

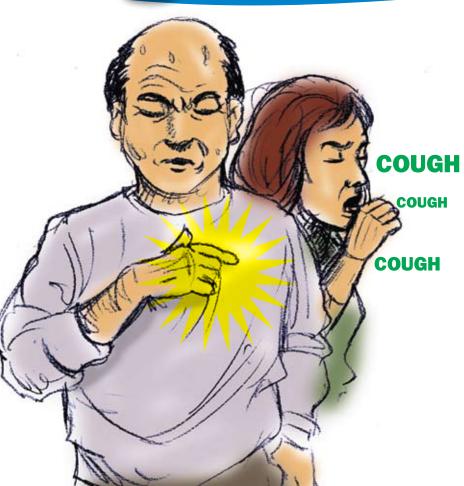


### **C.3**

#### How did I get TB disease?

- TB germs are spread through the air from one person to another when a person who is sick with TB disease coughs, laughs, sings or sneezes.
- If you breathe air that has TB germs, you may get TB infection.
- Without treatment, TB infection can turn into TB disease.

# What are some SIGNS-OF SYMPTOMS of TB disease?



- A bad cough that lasts three weeks or longer.
- Chest pain.
- Coughing blood or phlegm.
- Weakness or tiredness.
- Having no appetite.
- Chills and fever.
- Sweating at night or during sleep.

Some people may have all or only a few of these symptoms.



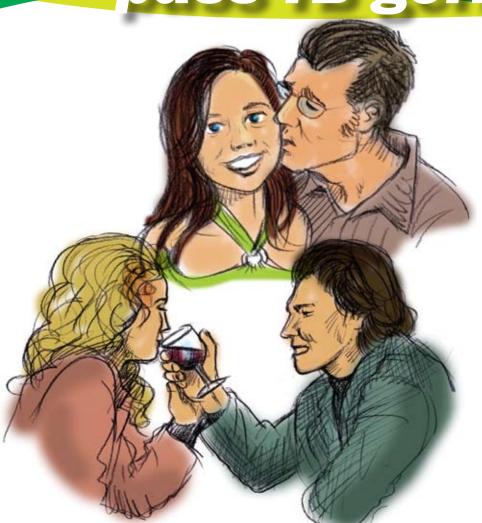
### What are some signs or symptoms of TB disease?

Some of the signs or symptoms of TB are:

- A bad cough that lasts three weeks or longer
- Pain in the chest.
- Coughing up phlegm or blood from deep inside the lungs.
- Weakness or feeling very tired.
- Having no appetite.
- Chills and fever.
- Sweating at night or when you are sleeping.
- Some people may have all of these symptoms, some people may have very few.

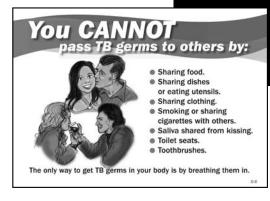


# You CANNOT pass TB germs to others by:



- Sharing food.
- Sharing dishes or eating utensils.
- Sharing clothing.
- Smoking or sharing cigarettes with others.
- Saliva shared from kissing.
- Toilet seats.
- Toothbrushes.

The only way to get TB germs in your body is by breathing them in.





#### You CANNOT pass TB germs to others by:

- Sharing food.
- Sharing dishes or eating utensils.
- Sharing clothing.
- Smoking, or sharing cigarettes with others.
- Saliva shared from kissing.
- Toilet seats.
- Tooth brushes.

**It is not necessary** to keep separate dishes or clothing for TB patients.

The **only way** to get TB germs in your body is by breathing them in.

### How is TB disease

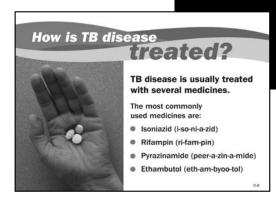
## treated?



### TB disease is usually treated with several medicines.

The most commonly used medicines are:

- Isoniazid (i-so-ni-a-zid)
- Rifampin (ri-fam-pin)
- Pyrazinamide (peer-a-zin-a-mide)
- Ethambutol (eth-am-byoo-tol)



**C.6** 

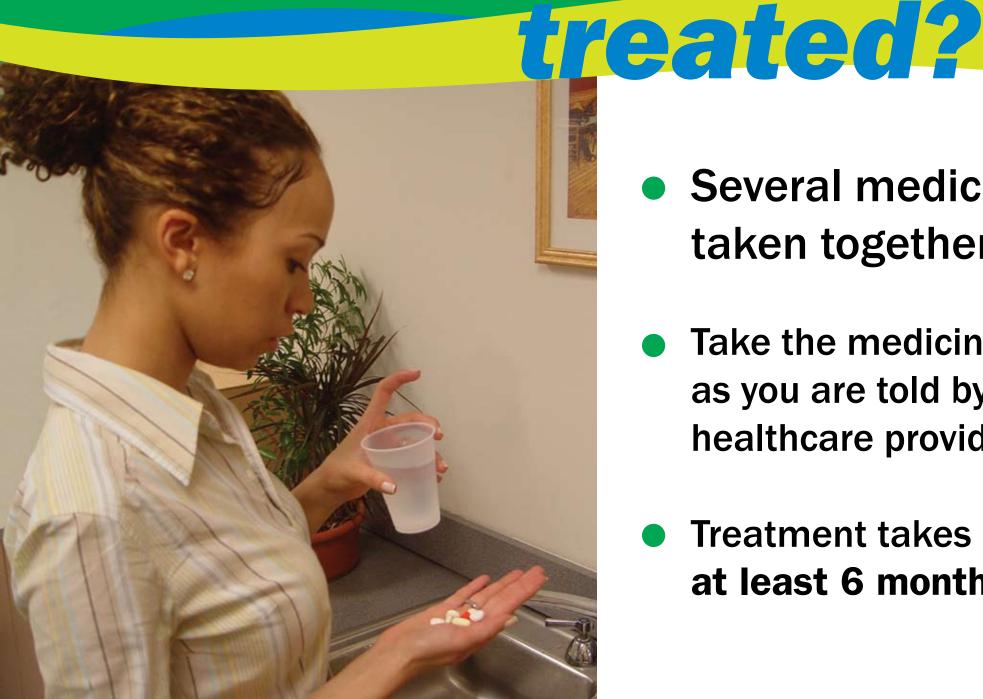
#### **How is TB disease treated?**

TB disease is treated with a combination of several medicines.

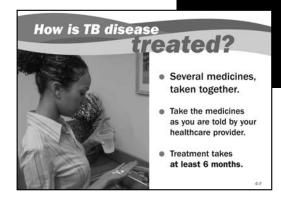
The most commonly used medicines are:

- Isoniazid (i-so-ni-a-zid)
- Rifampin (ri-fam-pin)
- Pyrazinamide (peer-a-zin-a-mide)
- Ethambutol (eth-am-byoo-tol)

### How is TB disease



- Several medicines, taken together.
- Take the medicines as you are told by your healthcare provider.
- Treatment takes at least 6 months.



**G.**7

#### Note to healthcare professional:

Use this opportunity to provide the patient with any specific instructions for taking TB medicines.

#### **How is TB disease treated?**

- You will start by taking several medicines together.
- It is important to take the medicines exactly as you are instructed. This is the only way to kill TB germs.
- You will need to stay on TB medicines for at least 6 months.

### Directly Observed Therapy



#### DOT

- Will help you through treatment for TB disease.
- Healthcare worker brings you your pills.
- Can help you stay with your medicine plan.

# Directly Observed Therapy • DOT • Will help you through treatment for TB disease. • Healthcare worker brings you your pills. • Can help you stay with your medicine plan.

## **C.8**

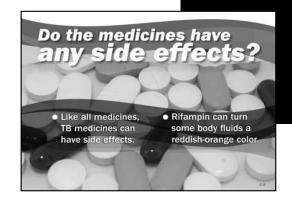
#### **Directly Observed Therapy**

- Directly Observed Therapy, DOT for short, is a program to help you complete your treatment.
- A healthcare worker will meet you everyday or several times a week to give you your medicine and make sure you don't miss a dose.
- The healthcare worker will meet you at a place and time that is convenient for you.
- The healthcare worker can be a great support to you as you complete treatment.

# Do the medicines have any side effects?

Like all medicines,
 TB medicines can have side effects.

 Rifampin can turn some body fluids a reddish-orange color.





## Do the medicines have any side effects?

- Like all medicines, the medicines used to cure TB disease can have side effects, but most people can take TB medicines without any problems.
- **For women:** Some birth control pills may not work as well when you take them with medicines for TB.
- A common, harmless, side effect of Rifampin is that it can turn your urine, tears, and saliva a reddish-orange color.
- While this does not cause any discomfort, it may take some getting used to.

# Tell us right away if you have:

- A fever.
- A rash.
- Aching joints.
- Aches or tingling in your fingers or toes.
- An upset stomach, nausea, or stomach cramps.
- Vomiting.
- Changes in your eyesight, such as blurred vision.
- Changes in your hearing such as ringing in your ears.
- Dizziness.
- Bruising.
- Easy bleeding when cut.
- Less appetite or no appetite for food.
- Tingling or numbness around the mouth.
- Yellow skin or eyes.
- Dark urine.
- Light colored stools.





C.10

## Tell your healthcare provider right away if you have:

These are the possible side effects that can occur while taking medicines for TB disease. If you have any of these symptoms while taking TB medicines you should tell us (*indicate a specific person and/or phone number*) right away. Most people can take their TB medicines without any problems.

- A fever.
- A rash.
- Aching joints.
- Aches or tingling in your fingers or toes.
- An upset stomach, nausea, or stomach cramps.
- Vomiting.
- Changes in your eyesight, such as blurred vision.
- Changes in your hearing such as ringing in your ears.
- Dizziness.
- Bruising.
- Easy bleeding when cut.
- Less appetite or no appetite for food.
- Tingling or numbness around the mouth.
- Yellow skin or eyes.
- · Dark urine.
- · Light colored stools.

# Take your pills the right-way-



If you don't take your pills the right way:

- The medicine may lose the power to cure your TB.
- You can stay sick for a longer time.
- You may have to take more medicines that have more side effects.
- You can pass TB germs on to others.

#### Take your pills the right way



- If you don't take your pills the right way:
- The medicine may lose the
  power to cure your TR
- You can stay sick for a
- You may have to take more medicines that have more side effects.
- You can pass TB germs or to others.

C.11

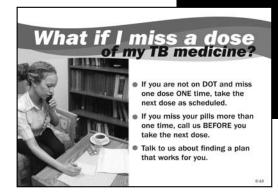
#### Take your pills the right way

- If you don't take the pills the right way, the TB germs can become resistant to the medicine.
- This means the medicine will have no effect on the TB germs. If this happens:
  - You can stay sick for a longer time, and
  - You may have to take more medicines that have more side effects.
  - Unfortunately, even the new medicines may not cure the TB, and this means you can pass TB germs on to others.

# What if I miss a dose of my TB medicine?



- If you are not on DOT and miss one dose ONE time, take the next dose as scheduled.
- If you miss your pills more than one time, call us BEFORE you take the next dose.
- Talk to us about finding a plan that works for you.



### **C.12**

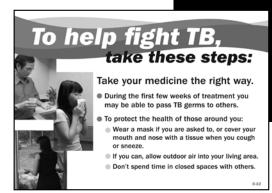
# What if I miss a dose of my TB medicine?

- If you are not on DOT, and miss one dose or forget to take your pills ONE time, don't worry, just take the next dose as scheduled.
- If you forget your medicine more than one time, call us (indicate a specific person and/or phone number) BEFORE you take the next dose. We will tell you what to do next.
- If you have trouble remembering your medicine, talk to us (indicate a specific person and/or phone number). We will work with you to find a plan that works.

## To help fight IB, take these steps:

#### Take your medicine the right way.

- During the first few weeks of treatment you may be able to pass TB germs to others.
- To protect the health of those around you:
  - Wear a mask if you are asked to, or cover your mouth and nose with a tissue when you cough or sneeze.
  - If you can, allow outdoor air into your living area.
  - Don't spend time in closed spaces with others.



C.13

## To help fight TB disease, take these steps:

- Take your medicine the right way as we have discussed. It is very important to take the medicine the right way; otherwise it may be very difficult or not possible to cure your TB.
- At the start of your treatment, you may still be able to pass TB germs to others. For this reason, you may need to wear a special mask for the first weeks of treatment. This will help prevent TB germs from getting into the air and help protect the health of those around you. If you are not wearing a mask, cover your mouth and nose with a tissue when you cough or sneeze.
- Allow as much outdoor air into your living area as possible. This will keep the air moving and make it harder for the TB germs in the air to stay alive.
- Don't spend time in closed spaces with others until your healthcare provider says you can no longer pass TB germs to others. Again, this is usually after you have been taking TB medicine for a few weeks.
- The healthcare workers around you (like me) may also wear a special mask to protect themselves.

# Talking to family and friends about TB



Let friends and family know:

- Anyone can get TB!
- You are taking the TB medicines the right way.
- Soon, you will no longer be contagious, and in some months you will be cured.
- A healthcare worker may speak with them.

TB can be prevented treated, and cured!

#### Talking to family and friends about 11B



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- A healthcare worker may speak with them.

TB can be prevented treated, and cured!

C-1

### C.14

## Talking to family and friends about TB

Talking about TB with friends and family is not always easy. You may want to share the information you have learned about TB with them. Let them know:

- Anyone can get TB!
- You are taking the TB medicines the right way. This
  is important because it ensures that soon you will no
  longer be contagious (able to pass TB germs to others)
  and in some months your TB will be cured.
- You may also want to let them know that a healthcare worker may speak with them about their chances of getting TB. They may need to have a TB skin test and x-ray.
- Also be sure to tell them that TB can be prevented, treated, and cured!

# Medicine Tips

Tips to help you remember your TB medicines if you are not on DOT:



- Take your medicine at the same time every day,
- Keep medicine in one place.
- Use a pillbox.Put a week's worth of pills in the box.
- Write yourself a note.
- Use a calendar.
- Ask a family member or friend to help you remember.

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C.15

### Note to healthcare professional:

Skip this panel if your patient is or will be on DOT.

#### **Medicine tips**

**Taking medicine everyday** can be a challenge. Remind yourself that you are staying on the medicine to kill all the TB germs. Remember to always take your full dose of medicine **even though you are feeling good**. If you are not on DOT, try some of these tips to help you remember to take your medicine:

- Take your medicine at the same time each day.
- Use a pillbox. Put a weeks worth of pills in the box.
- Keep your medicine in one place where you can't miss it.
- Write yourself a note. Put it on the bathroom mirror or on the refrigerator.
- Ask a family member or friend to help you remember.
- Use a calendar to check off the days you have taken
- your medicine.



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#### This flipbook was developed by the NJMS Global Tuberculosis Institute

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