

Tuberculosis (TB) Skin Test

A Guide for Health-Care Providers



Region of Waterloo
PUBLIC HEALTH

Targeting groups for screening

- Close contacts of known or suspected cases of active TB
- Persons from countries with a high prevalence of TB
- Those at risk for occupational exposure to TB
- Persons who are traveling or residing in an area with a high incidence of TB (≥ 3 months) or participating in high risk activities (e.g. health care, missionary work etc.)

For more detailed information about screening please refer to the Canadian Tuberculosis Standards.

Administering the Tuberculin Skin Test (TST)

1. Locate the injection site

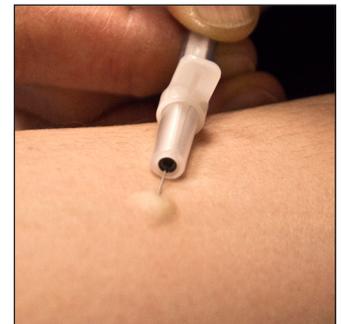
- Place the forearm palm side up
- Select an area two to four inches (5–10 cm) below the elbow free of tattoos, scars or broken skin
- Clean site using alcohol swab and allow to dry

2. Prepare the Tuberculin

- Check the tuberculin expiration date (use within one month after opening)
- Use a 1 ml tuberculin syringe with a ½ inch, 26 or 27 gauge needle
- Do not inject air into vial
- Withdraw 0.1 ml (five tuberculin units)
- Administer tuberculin immediately once drawn

3. Inject the Tuberculin

- Insert the needle just below the skin's surface at a five to 15 degree angle with the bevel up
- Inject the tuberculin — a wheal (small bubbled area) will form



4. Check the Injection Site

- Ensure a six to 10 mm wheal appears
- If the wheal is not six mm or more, repeat test two to four inches (5–10 cm) from the original site
- Do not cover with a band-aid

5. Document the following:

- Location (left arm or right arm)
- Tuberculin lot number and expiration date
- Date and time test administered
- Signature of health-care professional

Monitor client for 15 minutes post injection and instruct them to return in 48 to 72 hours to have the test read.

Precautions: Be aware and prepared for anaphylactic/acute allergic reaction.

next page ►



Take measurement
from this point

TB Skin Test Ruler

- Measure 48 to 72 hours after injection
- Measure across the forearm
- Measure the diameter of induration (not the erythema/redness)
- Record in millimetres (mm)
- Fax all positive skin tests to 519-883-2248



Region of Waterloo
PUBLIC HEALTH

Tuberculosis Control
519-883-2272

www.regionofwaterloo.ca/ph

Adapted with the permission of York Region
Community and Health Services

Reading the Tuberculin Skin Test (TST)

The skin test must be read 48–72 hours after administration. If this “window” is missed, you may need to re-administer the TST.

1. Inspect

- Inspect the skin test under good lighting
- Note the induration (hard, dense, raised formation)

2. Palpate

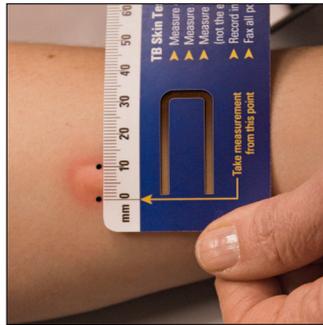
- Use your fingertips to determine if any induration is present

3. Mark

- Mark the edges of induration across the forearm with a pen held at a 45 degree angle

4. Measure

- Using a ruler, measure the distance between pen marks
- Measure induration — NOT erythema (redness)



5. Record Induration in millimetres (mm)

- DO NOT record as simply positive or negative
- If there is no induration, record as 0 mm

Interpretation of the TB Skin Test

Tuberculin reaction size (mm of induration)	Setting in which reaction is considered positive
0 to 4 mm	<ul style="list-style-type: none">• HIV infection AND expected risk of TB infection is high: patient is from TB endemic country, is a contagious contact, or has abnormal chest x-ray
5 to 9 mm	<ul style="list-style-type: none">• HIV infection/other immune suppression• Close contact of contagious active case• Abnormal chest x-ray with fibronodular disease• Child suspected of having TB
≥ 10 mm	All others

For help interpreting positive TB skin tests visit www.tstin3D.com

Report all positive TST

Under the 1990 Health Protection and Promotion Act, sec. 26 (reporting of carrier of disease), all positive TSTs are reportable to Public Health. The practitioner reading the test results must report the positive TST, even when referring the patient to another physician or specialist for treatment.

Fax all positive skin test results with recent chest x-ray to 519-883-2248

Two-Step Tuberculosis Skin Testing

May be recommended for persons who:

- Require subsequent (serial) testing (e.g. health care workers, correctional workers and volunteers)
- Are residents or staff of a long-term care facility/retirement homes
- Are from countries with high prevalence of TB
- Are undergoing medical investigation

Procedure:

- Administer and read the initial test to establish a baseline
- If first step is positive, do not repeat
- If the initial reaction does not meet positive skin test criteria, perform a second test one to four weeks later
- Document both skin test results
- Fax all positive skin test results along with recent chest x-ray to 519-883-2248

Note: If a two-step test is **documented**, any subsequent testing requires only a **single** test.

A two-step TST is NOT recommended for contact investigation.

Questions about TB and TB skin testing?

Call Region of Waterloo Public Health Tuberculosis Control Program at 519-883-2272 (TTY 519-575-4608)

References: Canadian Lung Association. (2007) Canadian Tuberculosis Standards. (6th ed.) Ottawa: Canadian Lung Association.

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