



## GOOD TO KNOW

Tips and tricks for  
accurate blood glucose monitoring

Tip 1 | Washing your hands

## No place for dirt



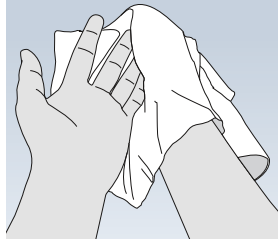
Accurate blood glucose readings are essential for your diabetes care. Correct self-testing is the key to ensuring that your readings are accurate.

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### TIP 1

Washing your hands thoroughly before taking a measurement removes residue from your fingers that can distort your readings.

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- Wash your hands with warm and soapy water. Let them dry completely afterwards. This supports blood circulation in the finger tips.
- Taking the blood sample from clean finger tips prevents incorrect blood glucose readings due to residues on skin surface of the fingertip. E.g. contact with food (especially fruits), alcohol, sweat and dirt before testing can distort the results.



- Use the first drop for the measurement.

Tip 2 | Cleaning your hands when out and about

## Wipe away the dirt

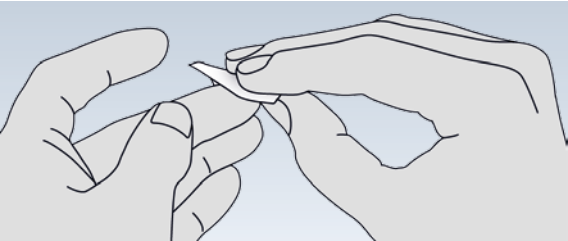


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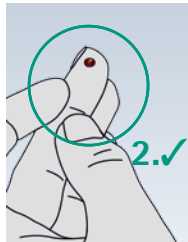
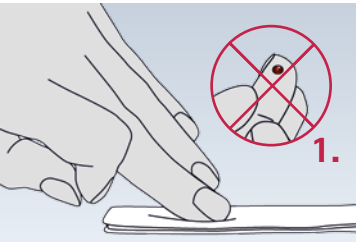
### TIP 2

Even if it is not possible to wash your hands when you're on the go, it is advisable to clean your fingers as follows to remove any dirt and residue that could distort your readings.

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- The puncture site can alternatively be wiped with an alcohol-soaked swab.
- Please ensure that the site is completely dry before collecting the blood sample.



- If you don't have anything to clean your hands with, it is essential to wipe away the first drop of blood and only use the second drop of blood for the measurement.

### Tip 3 | Removing and storing the test strips

# Wet fingers will distort your re



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#### **TIP 3**

Test strips can be touched anywhere, but not with wet hands. The test strips must also be stored correctly and discarded after the expiry date.

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# sults

- For an accurate measurement, your fingers and the test strips must be dry to make sure the blood sample is not diluted. This is because any moisture other than blood can affect the enzyme on the test strip and distort your readings.
- Store the test strips in the original vial in a cool, dry place between +2 °C to +30 °C (+36 °F to +86 °F). Take care in summer/winter – don't keep your test strips in the car.



- Remove a test strip from the test strip vial and check for any damage. Close the vial again immediately to protect the remaining test strips from moisture.
- Remember to check the expiry date. Discard test strips once the expiry date has passed.
- Once opened, the test strip vial has a shelf life of 6 months, however do not use the test strips beyond the expiry date indicated on the vial. To help you remember we recommend writing the date of first opening on the vial.

Tip 4 | Changing the lancet

For single use only!



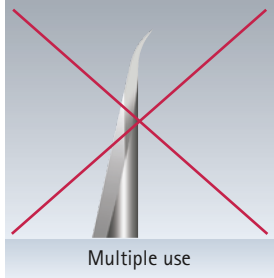
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**TIP 4**

Use a new lancet for every puncture to provide a hygienic and virtually pain-free blood collection.

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- After first use, the lancet is no longer sterile, which can increase the risk of infection.
- It takes just one skin puncture to make the tip of the lancet blunt and bent.
- If you reuse the same lancet this can cause increased pain and greater damage to the skin.
- Multiple use supports the formation of calluses, making it more difficult to take blood samples and requiring a deeper penetration depth.



- Have everything out ready to take the reading: Glucose meter, lancing device with a new lancet and test strip vial.

Tip 5 | Taking the blood sample and applying the blood

## Work from the outside in



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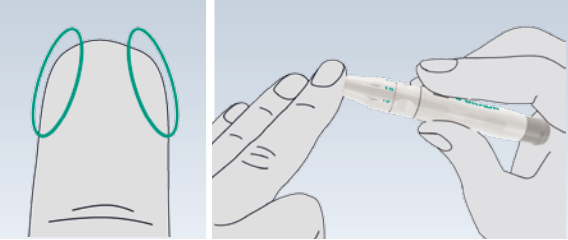
### TIP 5

Use middle, ring and little finger when taking your blood sample, avoiding the more strained and sensitive index finger and thumb. Change puncture site systematically and care for it properly to help prevent the formation of calluses.

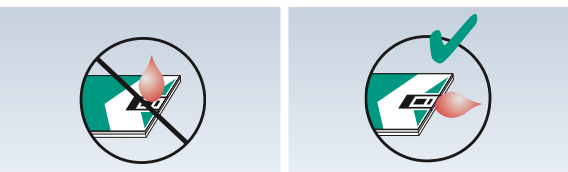
Take care when applying the blood to the test strip.

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## on the test strip



- Always use the side of your fingertip for puncturing. There are fewer nerves and you will perceive as little pain as possible.
- After puncturing, put the lancing device aside and wait for a blood drop to form. Lowering your hand to hip height and massaging the finger softly may improve the blood flow.
- Do not squeeze the finger to avoid diluting the blood by tissue fluid.



- Touch your finger to the tip of the Omnitest® 3 test strip. Ensure that blood is not applied from above.
- Do not force your finger against the test strip.
- Do not attempt to apply a smeared blood sample.
- The measuring chamber must be filled in one draw.
- Remove your finger from the test strip as soon as you hear the „beep“.

## Possible sources of error

# Possible sources of error and ho

Source of error	Effect
Residue on finger	Dirt, sweat etc. distort readings.
Sugar residue on finger	Sugar residue distorts readings.
Alcohol residue on finger	Alcohol residue can interfere with enzyme reaction and therefore affect the reading.
Wet sample site	Blood sample is diluted.
Test strip storage location too hot or too cold	Enzyme is destroyed. Correct measurements no longer possible.
Moist storage with open test strip vial.	Moisture can affect enzyme activity and therefore the measurements.
Expiry date passed or shelf life after opening passed	Enzyme no longer fully active. Incorrect readings.
Finger pressed too strongly	Blood sample is diluted by tissue fluid. Reading is too low.
Too little blood absorbed	Incorrect readings.
Too high or too low temperature during measurement	Incorrect temperature range during the measurement can cause incorrect readings.

## How these affect your readings

Effect on blood glucose value	Solution	see
↑ ↓	Clean your fingers well.	Tip 1 + 2
↑	Clean your fingers well.	Tip 1 + 2
↑ ↓	Wash your hands with warm soapy water or use an alcohol-soaked swab. In both cases, ensure that the site is completely dry before collecting the blood sample.	Tip 1 + 2
↓	Dry your fingers thoroughly.	Tip 3
↑ ↓	Discard test strips. Store new test strips correctly.	Tip 3
↑ ↓	Discard test strips. Close new test strip vial immediately after removal of test strip.	Tip 3
↓	Use new test strips. Observe the expiry date.	Tip 3
↓	Modern blood glucose monitors such as Omnitest® 3 only need a small amount of blood.	Otherwise Tip 3
↓	Use a sufficiently large drop of blood.	Tip 5
↑ ↓	Make sure the temperature is within a range of +10 °C to +40 °C.	Tip 5

## Omnitest® 3 Blood Glucose Monitoring System

# Fast. Easy. Accurate.



Only 0.3  $\mu$ L sample volume

Convenient strip ejector

Large LCD screen

Measurement time:  
Only 3 seconds

Three handy buttons user  
interface

Omnitest® 3 is one of the fastest blood glucose monitoring systems combined with a minimal need of blood. The intuitive menu navigation ensures a simple and safe handling. The large LCD panorama display thereby offers best view on all values.

There is no manual coding necessary. In only 3 steps Omnitest® 3 leads you to the result.

**Insert test strip – Apply blood – Read the result**

MEETS THE REQUIREMENTS  
OF ISO 15197:2013



**NOTHING IS MORE IMPORTANT THAN A RELIABLE VALUE!**

The accuracy of Omnitest<sup>®</sup> 3 measurement results was confirmed in clinical studies and laboratory tests. The good agreement with laboratory methods gives a safe basis to patients with diabetes and professionals to develop the right diabetes therapy.

Measuring accuracy meets the requirements of ISO 15197:2013.

## LIST OF LITERATURE

- Hortensius J et al., Self-monitoring of blood glucose: The use of the first or the second drop of blood, *Diabetes Care* 34: 556-560, 2011
- Ginsberg B H, Factors Affecting Blood Glucose Monitoring: Sources of Errors in Measurement, *Journal of Diabetes Science and Technology* 3(4): 1-11, 2009
- Hirose and Associates, Glucose Monitoring After Fruit Peeling: Pseudohyperglycemia When Neglecting Hand Washing Before Fingertip Blood Sampling, *Diabetes Care* 34: 596-597, 2011