

Accu Chek Compact Plus Control Solution

Ensuring Accuracy Every Time: The Accu Chek Compact Plus Control Solution

Living with diabetes requires meticulous attention to blood glucose monitoring. Your meter gives you the numbers you need to make critical decisions about food, exercise, and medication. But how do you know those numbers are correct? This is where the **Accu Chek Compact Plus Control Solution** becomes an indispensable part of your diabetes management toolkit. It is a specially formulated liquid that lets you verify that your meter and test strips are working accurately together. Using a control solution is a simple, yet vital step that helps ensure the reliability of every single test result you get from your Accu-Chek Compact Plus meter. This article will walk you through everything you need to know about this essential product, from what it is and why it matters, to how to use it correctly and get the most out of it.

What Exactly is the Accu Chek Compact Plus Control Solution?

The Accu Chek Compact Plus Control Solution is a quality control check for your blood glucose monitoring system. Think of it as a known standard – a liquid that contains a specific, fixed amount of glucose (sugar). When you test this solution with your meter and test strips, the result should fall within a certain range printed on the test strip vial. If it does, you have strong evidence that your meter and strips are performing correctly. If the result is outside the expected range, it is a signal that something is off – perhaps the strips are damaged, the meter needs cleaning, or there is a temporary error. In such cases, you should not rely on your blood glucose results and should troubleshoot the issue before using the meter for a finger-stick test.

Why is Using a Control Solution So Important?

Many people with diabetes skip this step, but incorporating regular control solution testing offers several key advantages:

- **Validates System Accuracy:** It gives you confidence that your meter and strips are giving you a truthful reading. This is especially crucial before using a new box of test strips.
- **Detects Strip Problems:** Test strips are sensitive to heat, humidity, and light. The control solution can help you identify if a batch of strips has been compromised due to improper storage or expiration.
- **Identifies Meter Issues:** Over time, meters can get dirty or develop electronic issues. A control test can alert you to a meter problem long before it leads to unreliable daily readings.
- **Provides Peace of Mind:** When your numbers seem unexpectedly high or low, you may wonder if it is a real low or high or a meter error. A control test can rule out (or confirm) a problem with your equipment.
- **Required for Troubleshooting:** Many diabetes educators and healthcare providers recommend performing a control test if your blood glucose reading does not match

how you feel. It is also a standard part of meter troubleshooting if the device displays error codes.

How to Use the Accu Chek Compact Plus Control Solution Correctly

Using the control solution is straightforward, but following the steps precisely is important for a reliable result. Here is a step-by-step guide tailored to the Accu-Chek Compact Plus system:

1. **Gather your materials:** You will need your Accu-Chek Compact Plus meter, a box of compatible test strips (the drum inside the meter), and the Accu Chek Compact Plus Control Solution bottle. Also, have a clean tissue or cloth nearby.
2. **Check the expiration dates:** Ensure both the control solution and the test strips are not expired. The control solution is typically good for 3 months after opening – write the open date on the bottle.
3. **Prepare the meter:** Make sure your meter is clean and functioning. Insert a new drum of test strips if you haven't already. The meter will automatically advance to a fresh strip.
4. **Shake the control solution bottle:** Gently invert the bottle several times to mix the solution. Do not shake vigorously as this can create bubbles.
5. **Apply a drop of control solution:** Squeeze a single drop onto a clean, non-absorbent surface (such as the cap of the bottle or a clean piece of plastic). Do not touch the drop with your finger.
6. **Test like normal blood:** Hold the test strip opening to the drop of solution. The meter will draw the liquid in. Wait for the meter to count down and display a result.
7. **Compare the result:** Take the number that appears on your meter. Look at the test strip drum's label or the package insert. You will see a range of values listed (e.g., "Control solution range: 4.2 – 7.8 mmol/L" or equivalent in mg/dL). Your meter reading should fall within that range.
8. **Interpret the result:** If the reading is within range, your system is working correctly. If it is outside the range, do not use the meter for blood testing. Repeat the test once with a fresh test strip and a new drop of solution. If the second test also falls outside the range, your test strips may be faulty, or your meter may need service or cleaning.

Pro tip: Always use a fresh drop of control solution for each test. Do not reuse the drop that has already touched a test strip.

Proper Storage and Handling of the Control Solution

To ensure your Accu Chek Compact Plus Control Solution remains accurate, proper storage is critical. Follow these guidelines:

- **Temperature:** Store the solution at room temperature, typically between 36°F and 86°F (2°C to 30°C). Avoid extreme heat, freezing, or direct sunlight. Do not store it in the bathroom where humidity and temperature fluctuate.
- **Keep the cap tight:** Always replace the cap firmly after use. The solution can evaporate or become contaminated if left open, leading to inaccurate results.
- **Use within 3 months:** Once opened, the solution is potent for 90 days. Write the opening date clearly on the bottle label. After that, discard the bottle even if there is liquid left.

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- **Check the expiration date:** The unopened bottle has a factory expiration date. Do not use it after that date has passed.
- **Avoid contamination:** Do not touch the tip of the bottle to any surface, including your finger, a test strip, or the meter. This can introduce bacteria or foreign substances that alter the glucose concentration.

When Should You Perform a Control Test?

Routine control testing is not always necessary for every box of strips, but it is recommended in the following situations:

- **When you open a new box of test strips (or insert a new drum).** This ensures the new batch is reliable.
- **If you suspect the meter or strips have been damaged.** For example, if you dropped the meter, left strips in a hot car, or exposed them to moisture.
- **When your blood glucose reading seems unusually high or low and does not match your symptoms.**
- **If you experience repeated error messages on the meter.**
- **To confirm proper technique after cleaning the meter.**
- **At regular intervals as recommended by your healthcare provider (e.g., once a week or once a month).**

Compatibility with the Accu-Chek Compact Plus System

The Accu Chek Compact Plus Control Solution is specifically formulated for use with Accu-Chek Compact Plus meters and the corresponding compact test strip drums. It is not interchangeable with other control solutions, such as those designed for Accu-Chek Active, Aviva, or Guide meters. Using the wrong control solution can give entirely false results because the glucose concentration may differ or the solution may not be calibrated for that meter's test strip chemistry. Always verify that the control solution bottle you have is labeled for the Accu-Chek Compact Plus. This item code is typically found on the back of the bottle and matches the control solution listed on your test strip box.

Troubleshooting: What If the Control Test Fails?

A failed control test can be unsettling, but it does not always mean your meter is broken. Follow this systematic approach:

1. **Check for obvious errors:** Did you use a fresh drop of control solution? Did you store the solution correctly? Is the control solution or test strip expired?
2. **Perform a second test:** Use another strip from the same drum and a new drop of solution. If the second test falls within range, the first test may have been a one-time fluke (e.g., a bubble or insufficient sample).
3. **Try a different drum of test strips:** If the second test fails, the problem might be with the current drum. Open a new drum of strips and repeat the test. If it passes, discard the old drum.
4. **Clean your meter:** Over time, the test strip channel can collect dust, blood residue, or moisture. Use a lint-free cloth slightly dampened with water or a mild detergent (not alcohol or solvents) to gently clean the area where the drum sits and the strip entrance. Let it dry completely before testing again.

5. **Contact Accu-Chek customer support:** If the control test continues to fail with fresh strips and a freshly opened control solution, your meter may be defective. Accu-Chek provides customer service and often offers replacement options.

Benefits of Using the Accu Chek Compact Plus Control Solution Regularly

Incorporating this simple check into your routine can have a profound impact on your diabetes management:

- **Greater confidence in your readings:** Knowing your meter is accurate allows you to trust the numbers you base your insulin doses and food choices on.
- **Reduced worry about unexpected results:** You can quickly rule out equipment error when a reading seems off.
- **Better overall glycemic control:** Reliable data leads to more informed decisions, which can help stabilize blood sugar levels over time.
- **Cost-effective quality control:** A single bottle of control solution costs a fraction of the price of a new meter or a wasted batch of strips, and it can save you from inaccurate readings that could lead to dangerous dosing errors.

Conclusion

The Accu Chek Compact Plus Control Solution is more than just an accessory—it is a vital safeguard for anyone who relies on the Accu-Chek Compact Plus blood glucose monitoring system. By providing a simple, reliable way to verify the accuracy of your meter and test strips, this solution empowers you to take control of your diabetes with confidence. Make it a habit to perform a control test whenever you open a new drum of strips or whenever you have any doubt about a reading. Store the solution properly, check expiration dates, and follow the testing steps carefully. With regular use, the control solution helps ensure that every number on your meter is a true reflection of your blood glucose, allowing you to make the best possible decisions for your health.