

cuesee
Ringe



Hi,
I am Ringe!



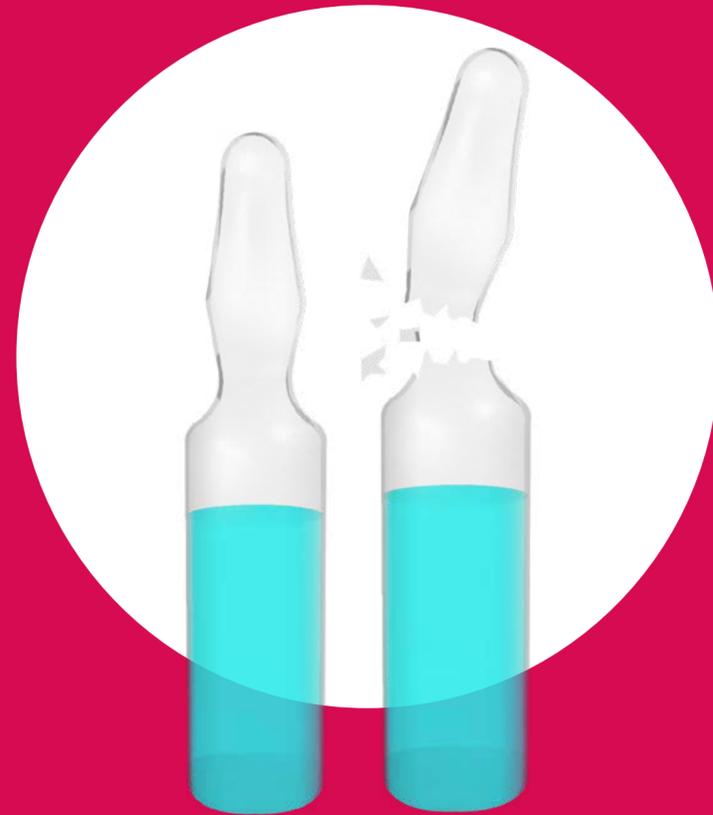
Understanding the
CueSee® Ringe (CSR)
for a Safe and Easy
Approach to Blood
Gas CueSee.

For decades, standard glass ampoules have been used for blood-gas CueSee, offering several clear benefits.

Glass is chemically inert and fully gas-tight, enabling long shelf-life when ampoules remain sealed.

In addition, the transparency of glass allows a clear visual inspection of the contents.





However, glass ampoules also present notable disadvantages, particularly with respect to handling safety. They can be difficult to open and pose a risk of injury, including:

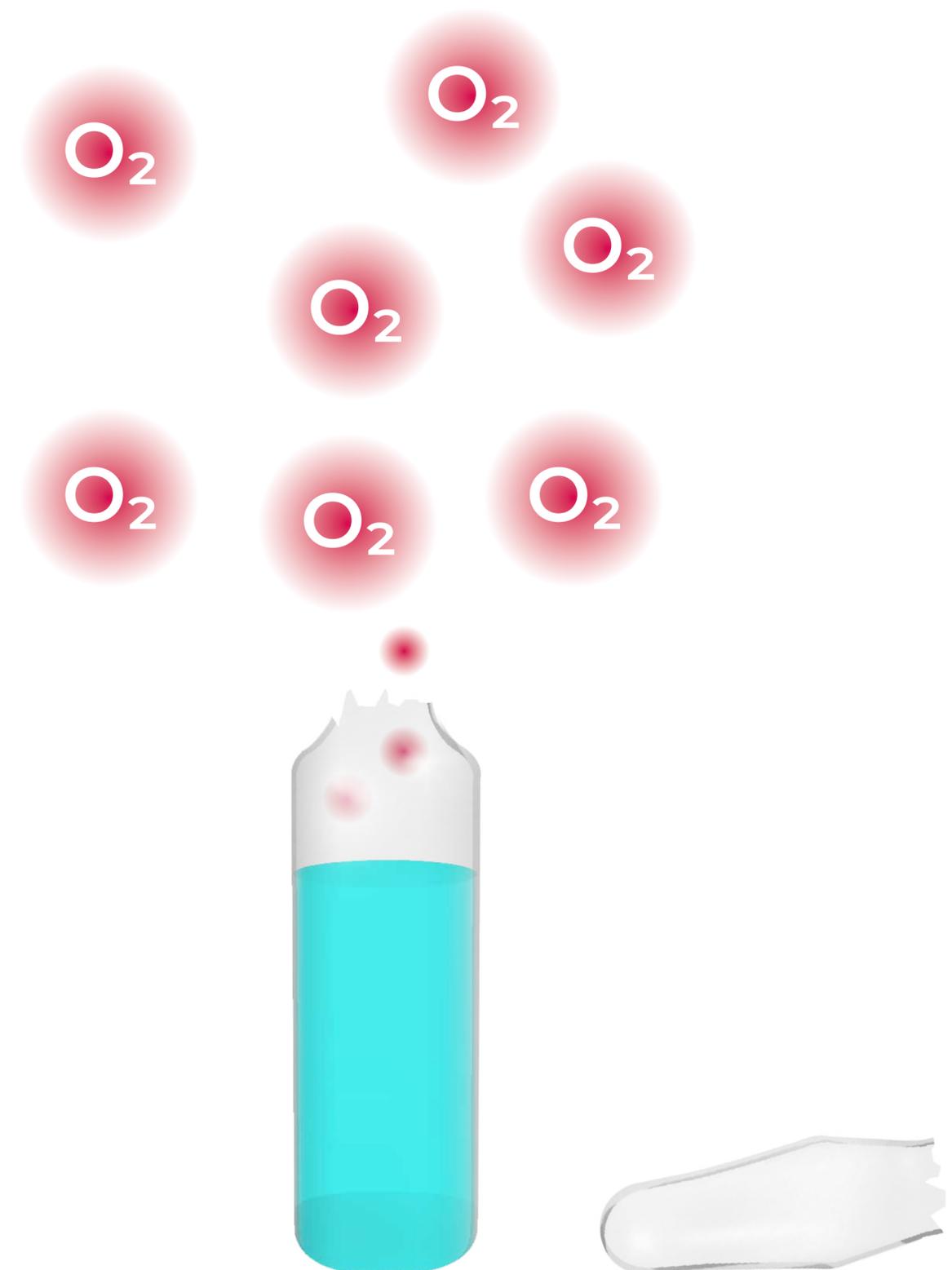
- Lacerations from sharp glass fragments
- Scattering of glass particles

In addition, glass ampoules are fragile and may break during transport and storage.

A key practical disadvantage is that once a glass ampoule is opened, the contents are immediately exposed to ambient air.

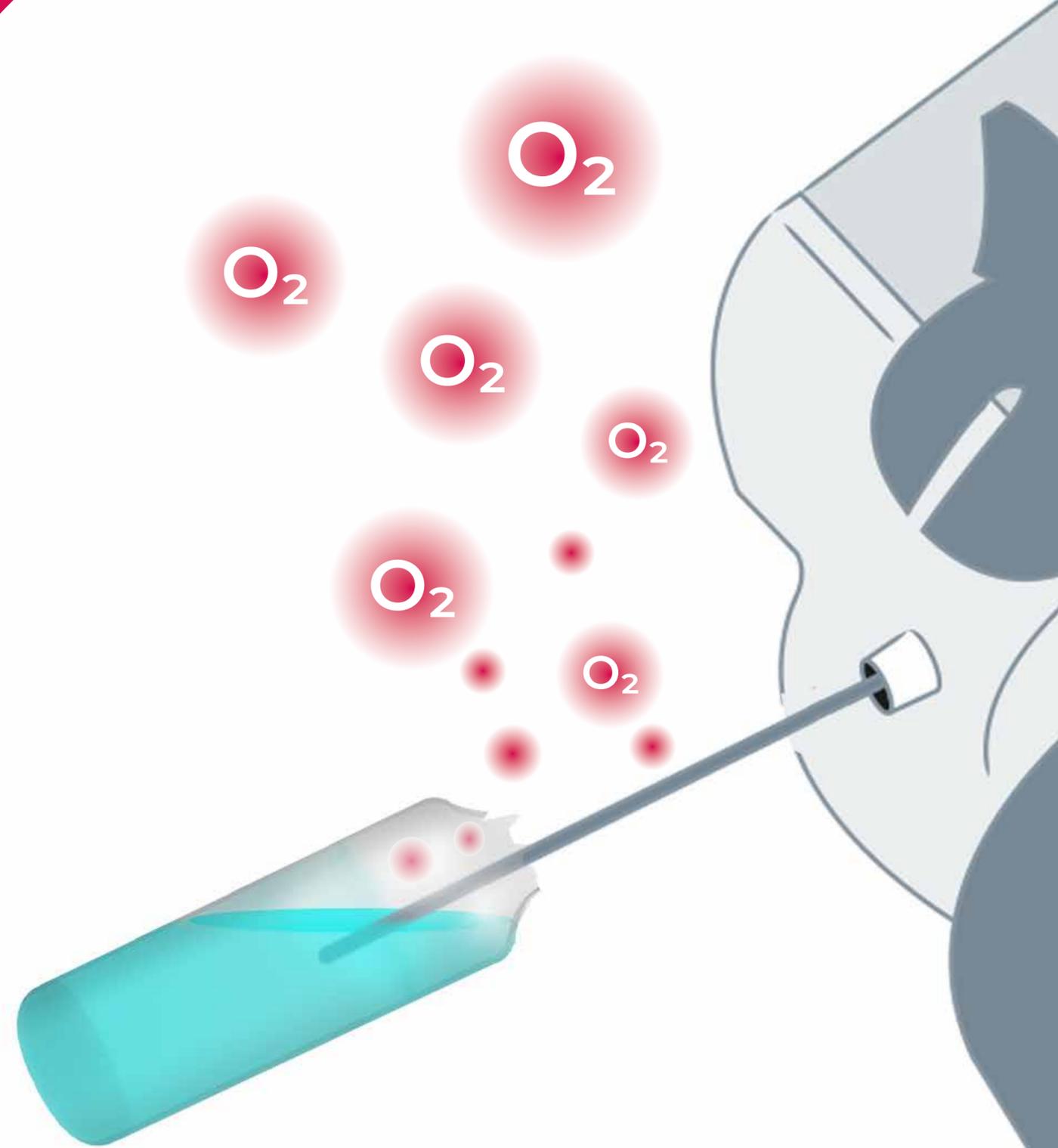
This rapidly alters the pO_2 , limiting the stability of the opened vial to a maximum of 30 seconds.

pO_2 in Air is
160 mmHg



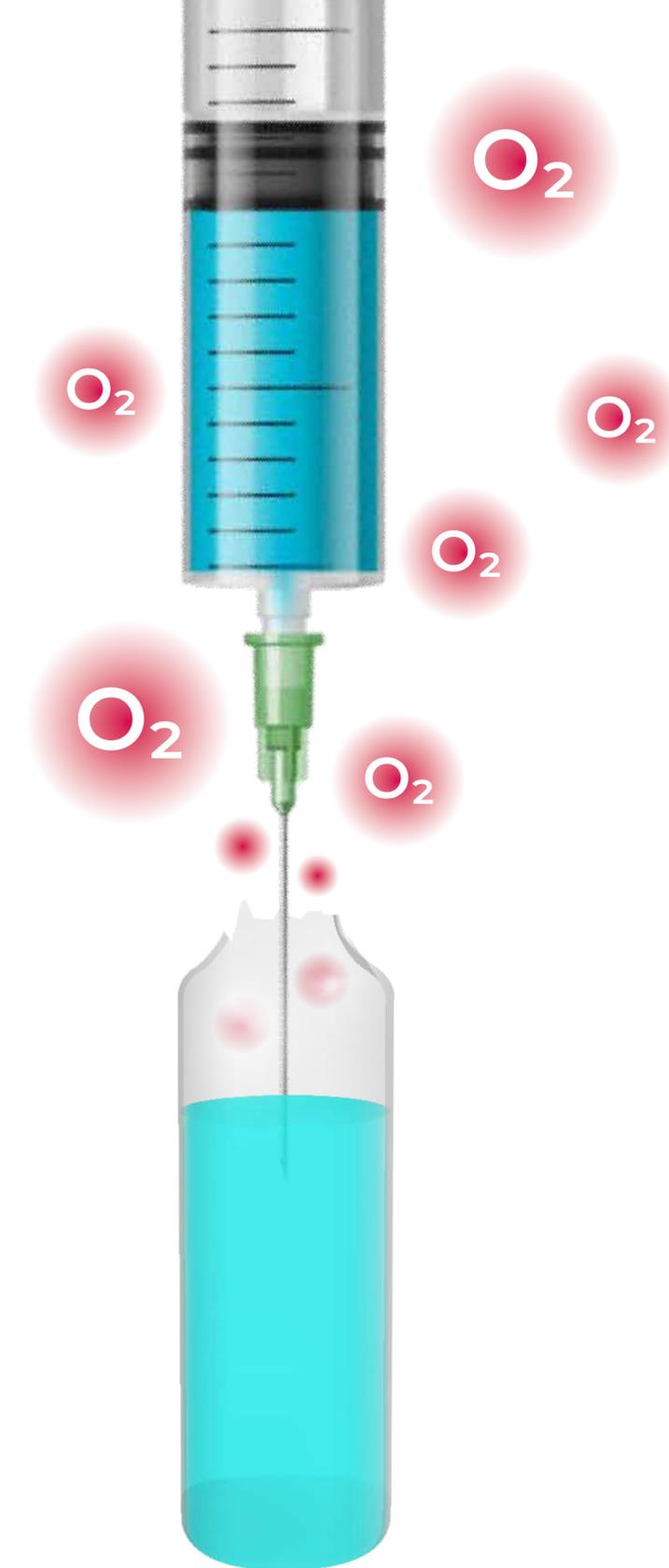
When aspiration mode is used, the analyzer needle aspirates the sample directly from an open ampoule.

During this process, the contents are fully exposed to ambient air, creating a risk of air contamination and subsequent pO_2 alteration.

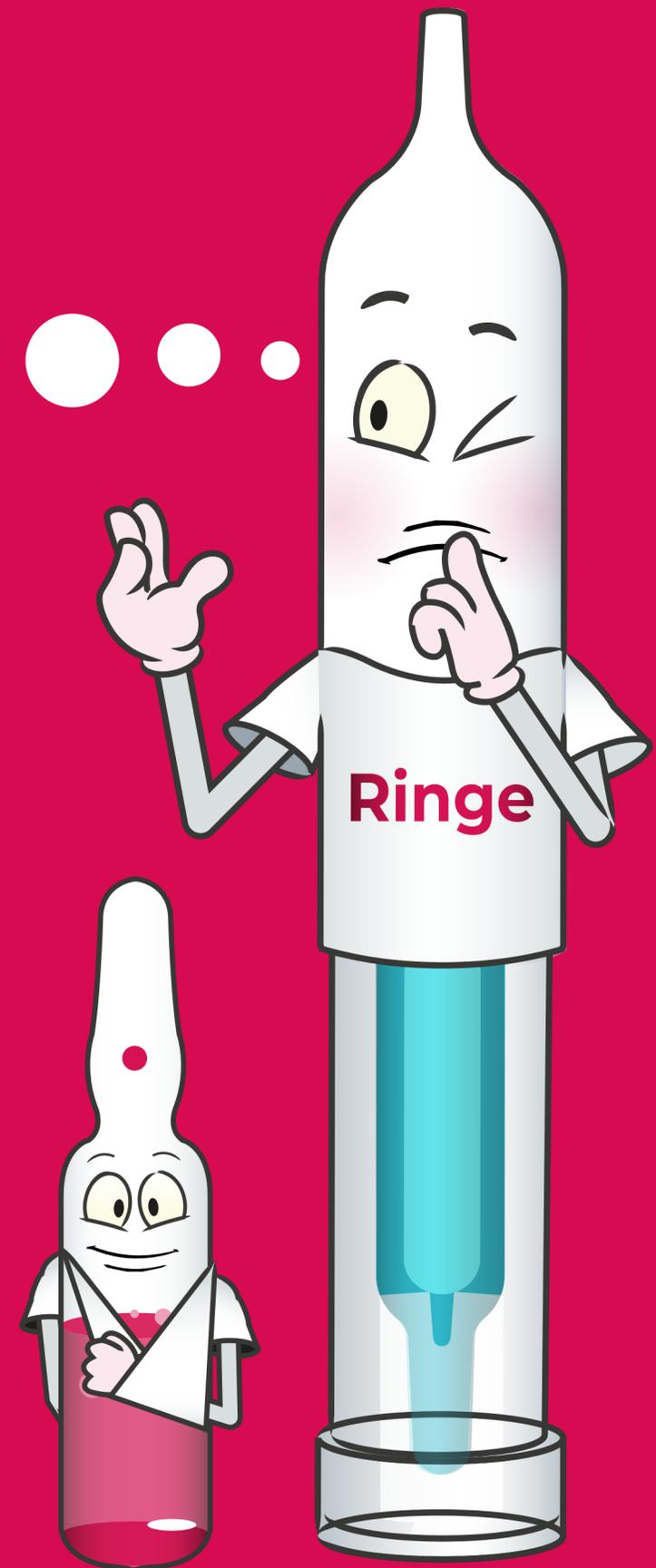


When injection mode is used, you need a separate device to collect the sample from the ampoule.

This is unpractical and again a big source of air contamination influencing the pO₂.



How to
resolve these
issues?



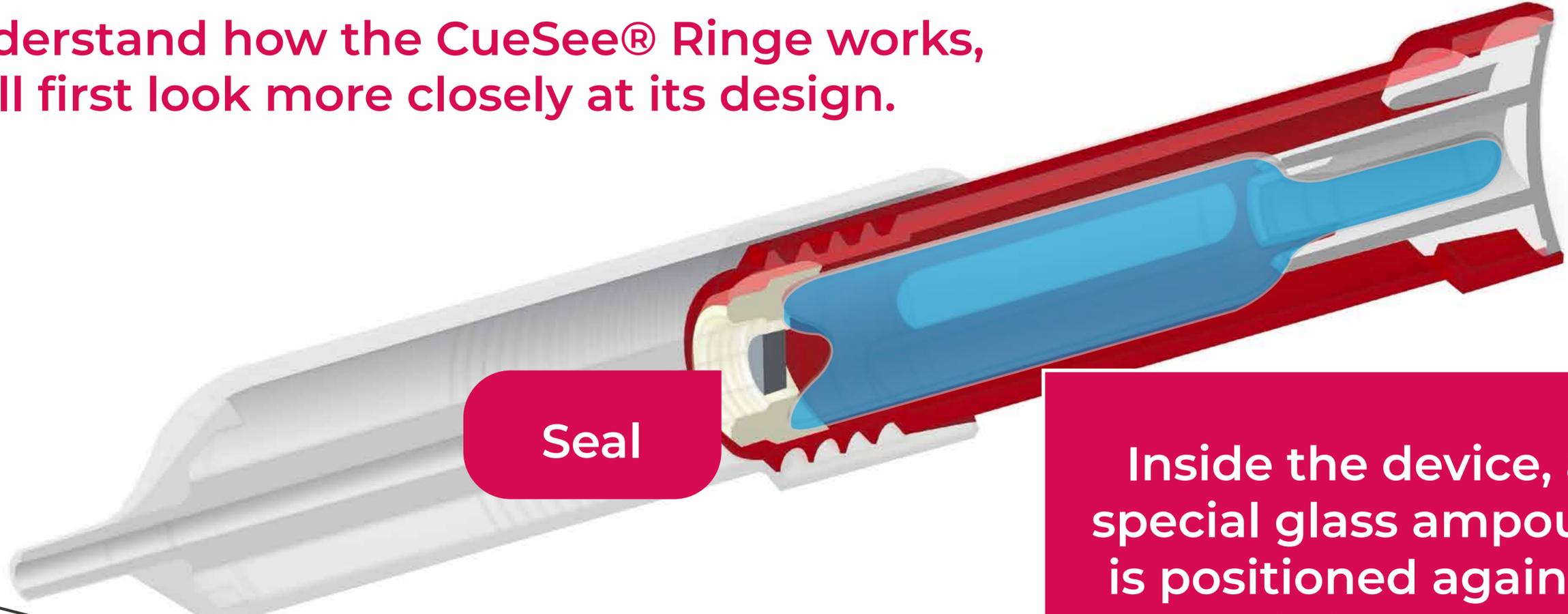
cuesee
Ringe

CueSee® Ringe

The ultimate solution for a safe and easy way to sample for blood gas CueSee with none of the drawbacks of traditional ampoules.

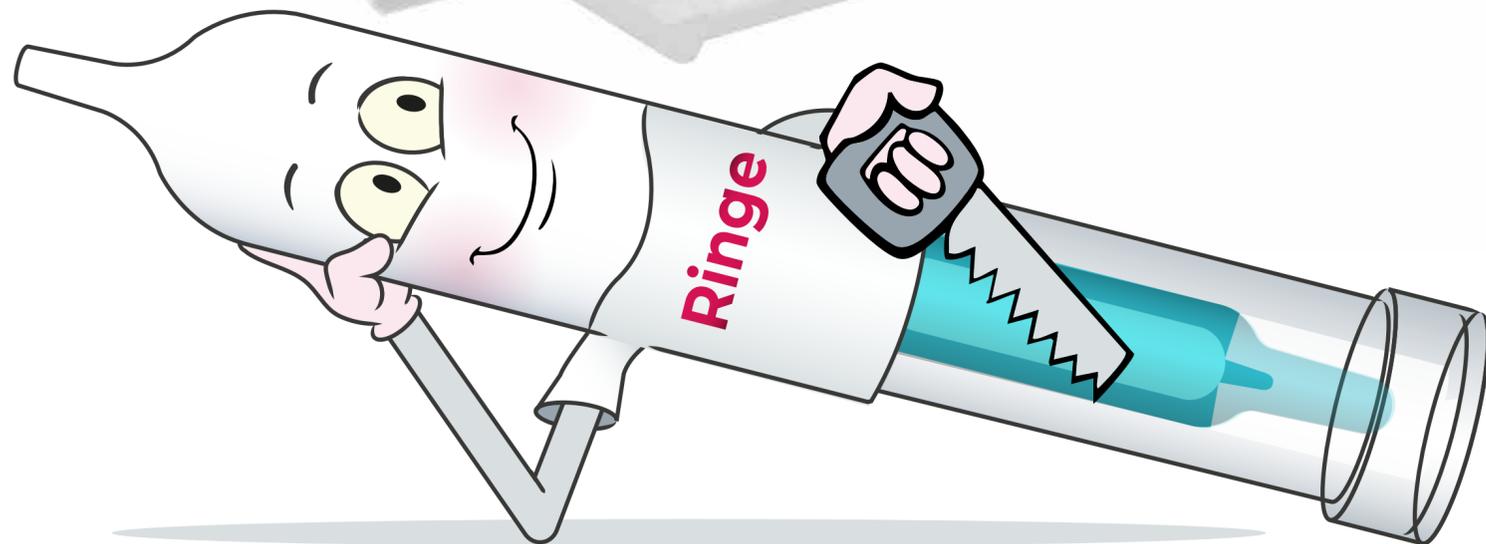


To understand how the CueSee® Ringe works, we will first look more closely at its design.

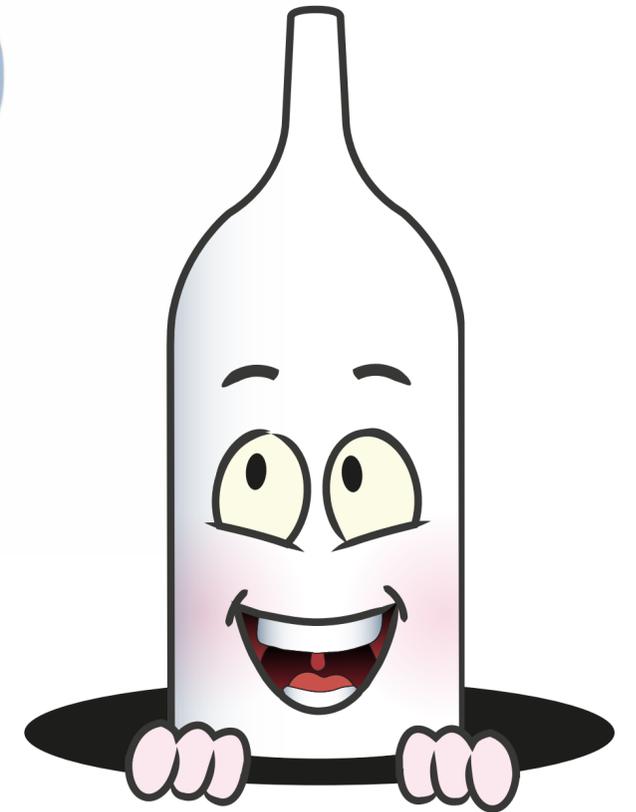
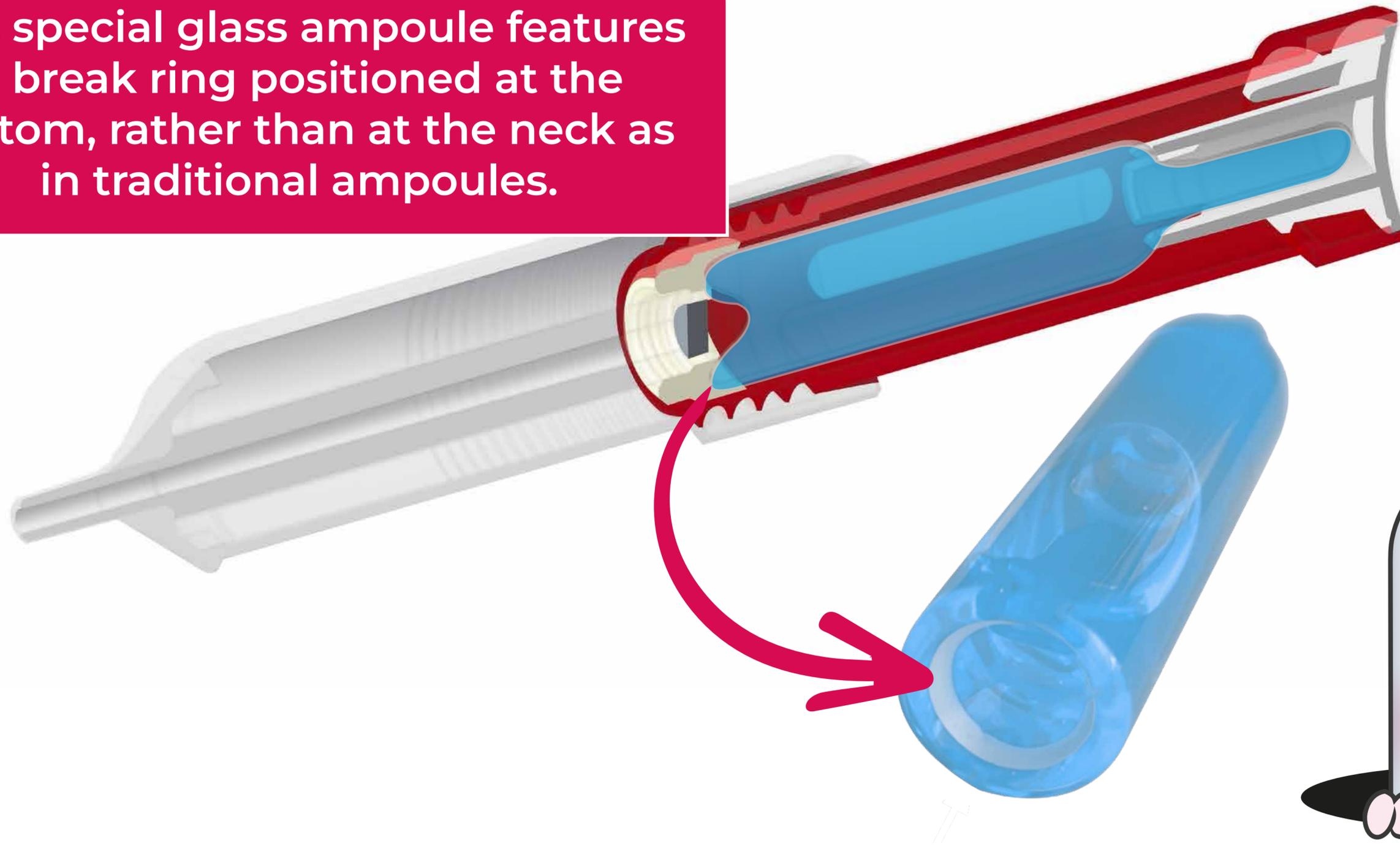


Seal

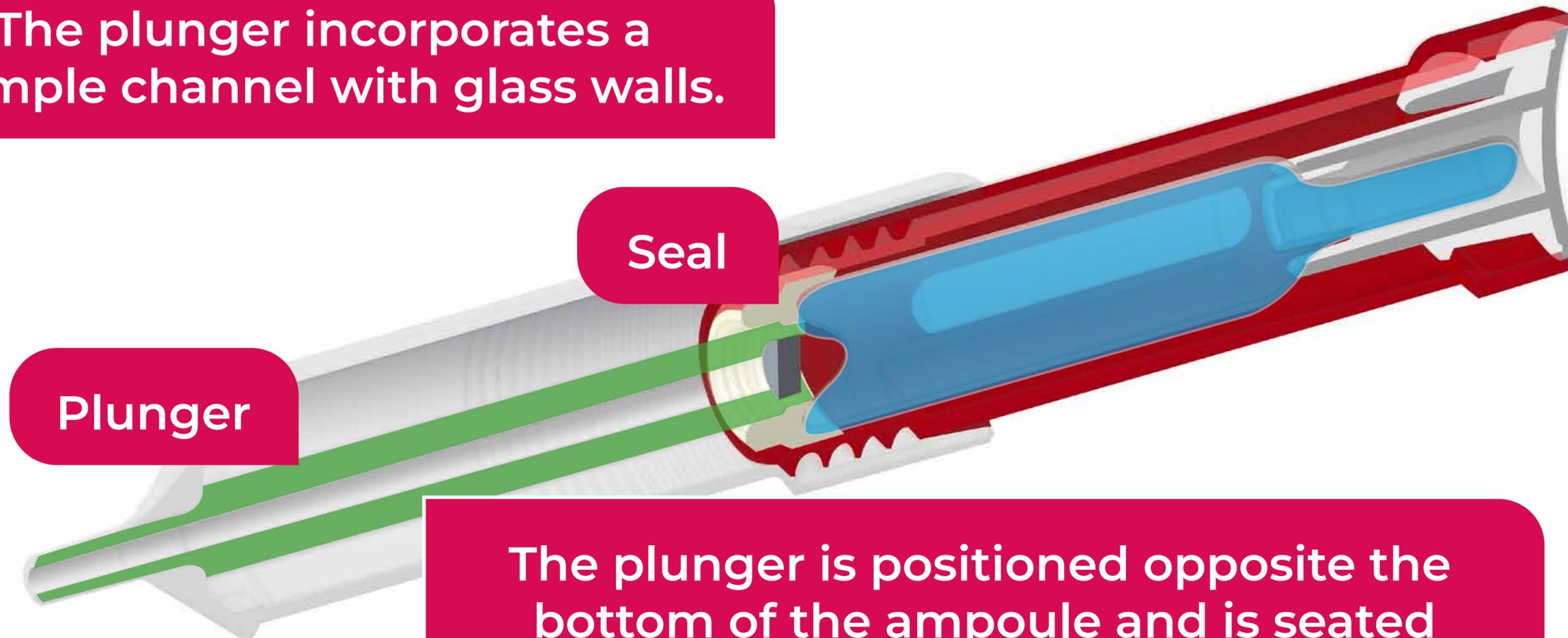
Inside the device, a special glass ampoule is positioned against an airtight seal.



This special glass ampoule features a break ring positioned at the bottom, rather than at the neck as in traditional ampoules.

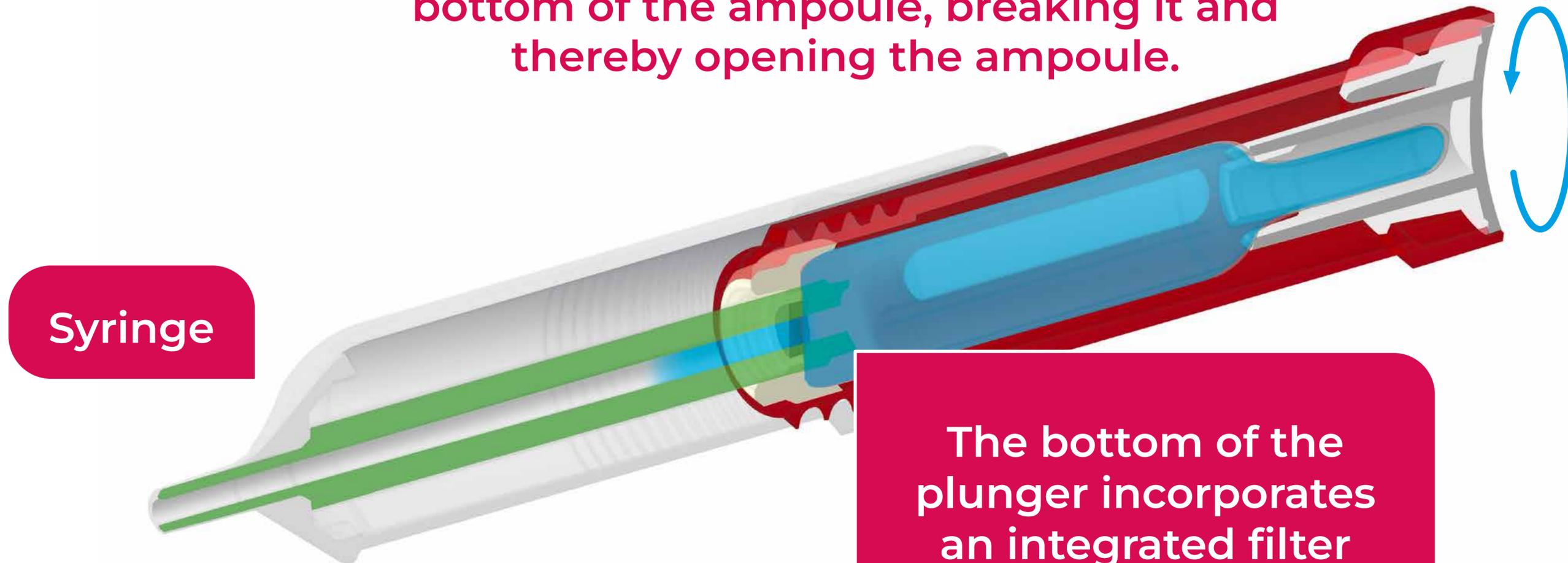


The plunger incorporates a sample channel with glass walls.



The plunger is positioned opposite the bottom of the ampoule and is seated against the seal to form an airtight closure.

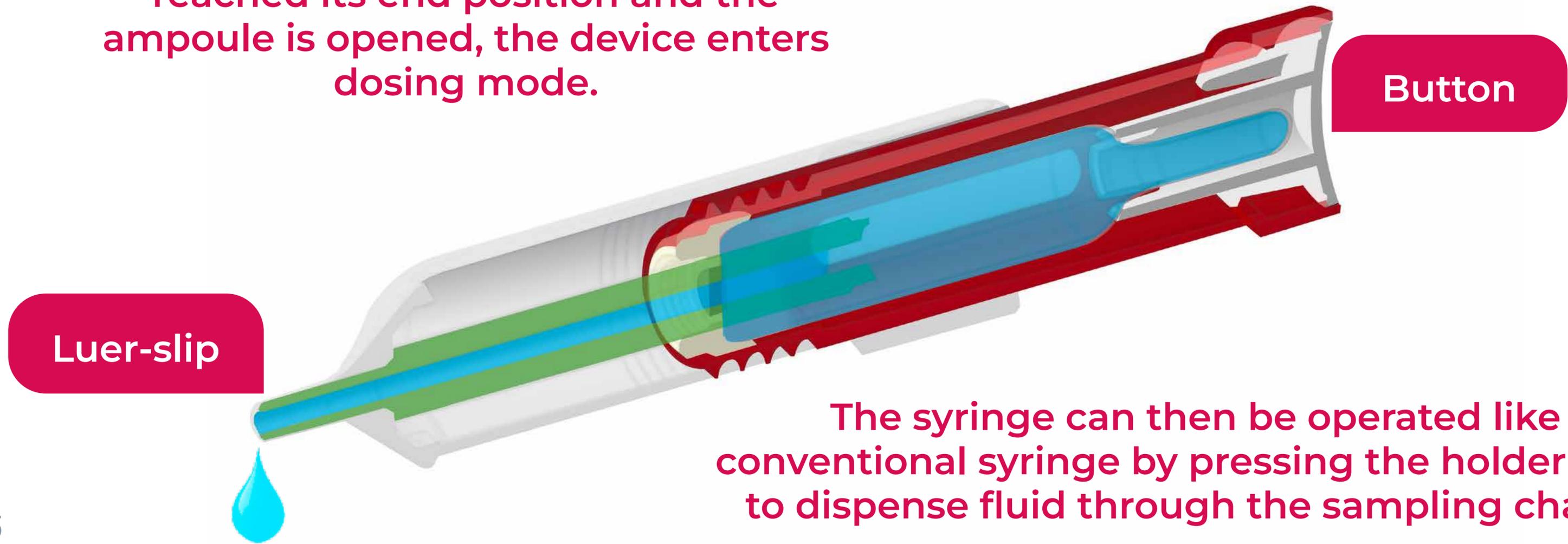
When the syringe is held stationary and the holder (red component) is rotated, the threaded mechanism advances the plunger toward the bottom of the ampoule, breaking it and thereby opening the ampoule.



The bottom of the plunger incorporates an integrated filter that prevents glass particles from entering the sampling channel.

As the plunger advances, direct contact with the liquid pushes it forward, ensuring air-independent flow into the sampling channel.

Once the threaded mechanism has reached its end position and the ampoule is opened, the device enters dosing mode.



The syringe can then be operated like a conventional syringe by pressing the holder button to dispense fluid through the sampling channel.

Dosing is performed without an additional sampling device, as the package incorporates an integrated syringe with a standard Luer-slip connection.

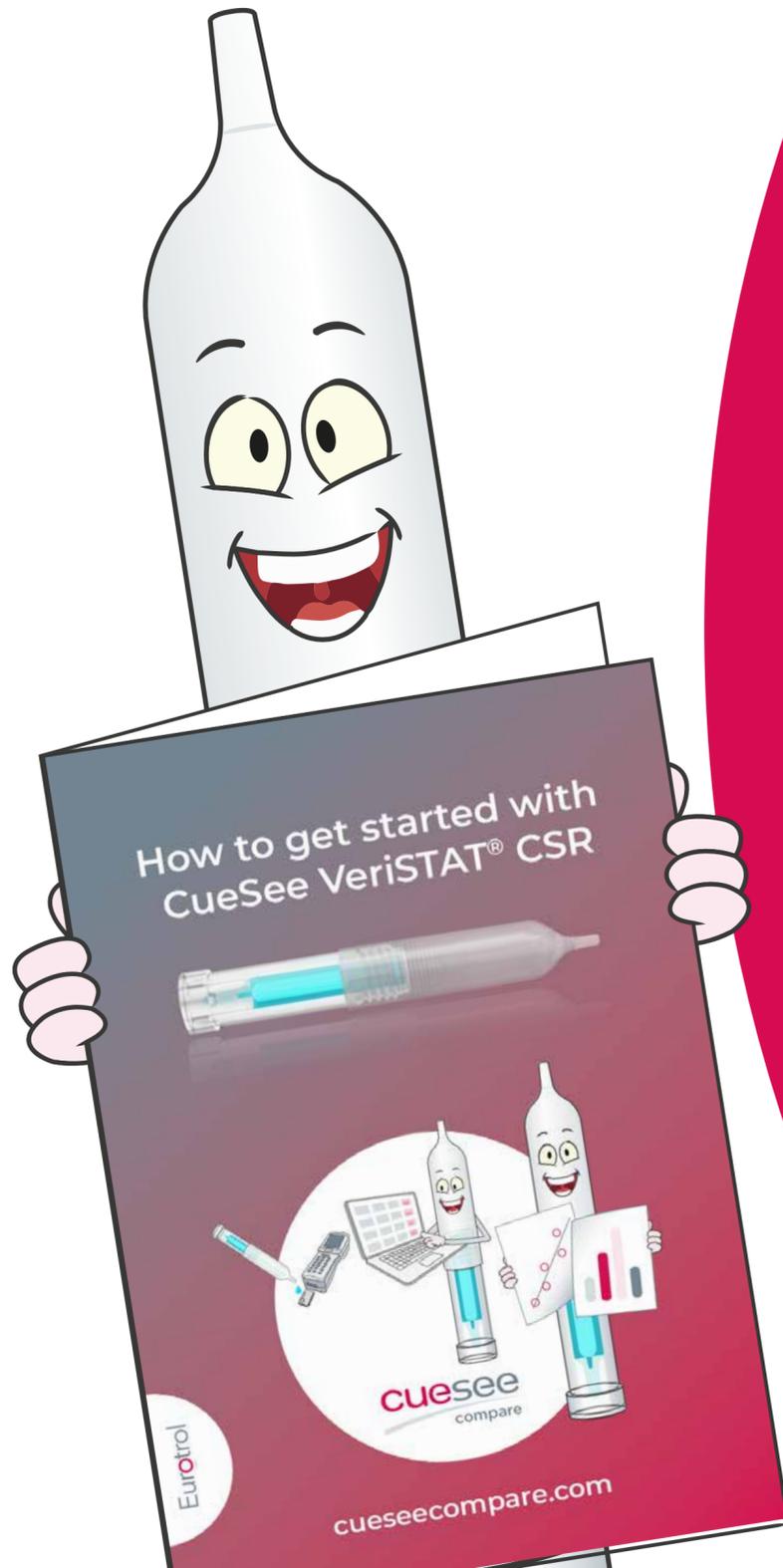
Only the very small opening of the sampling channel at the Luer-slip is exposed to ambient air. As a result, oxygen contamination is minimized, providing an open-vial stability of at least 15 minutes.

15
min

Button

This extended stability allows multiple samplings to be performed from a single ampoule while maintaining consistent quality.

Before using the CueSee® Ringe, users should carefully read the “How to Get Started” instructions.



CueSee VeriSTAT® CSR

To Get Started

- Sign up for cueseecompare.com
supportus@eurotrol.com
502-501-1180 Ext. 1
- Obtain your barcode sheet for all lots from CueSee® Compare
- Prepare your samples as explained below
- Enter your results in CueSee® Compare
- Obtain reports with Target Values and many more from CueSee® Compare

Sample Preparation

Method A - Recommended

A1 Bring device from refrigerator to room temperature for a minimum of 2 days.
18-25 °C, 64-77 °F
0 2 32 days

A2 Before activation the device is stable for 30 days at room temperature.
No shaking required!
18-25 °C, 64-77 °F
0 2 32 days

Method B - Alternative (for urgent needs)

B1 Bring device from refrigerator to room temperature for a minimum of 1 hour.
18-25 °C, 64-77 °F
1 hour

B2 Shake vigorously for 3 minutes.
3 min

3 After method A or B continue with Step 3
Prepare the Abbott i-STAT® for testing according to the manufacturer's instructions.

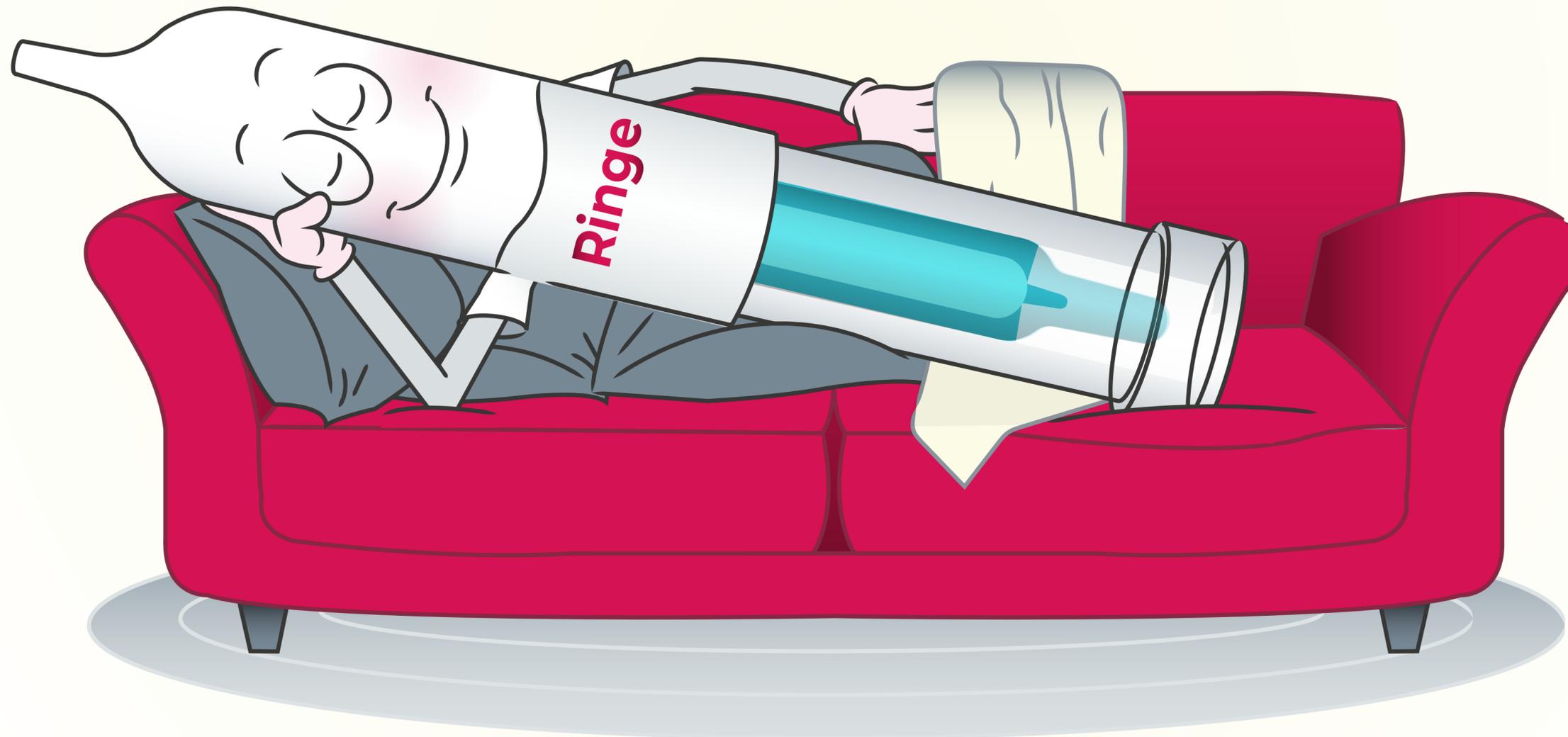
4 During step 4, 5 and 6 **ALWAYS** keep tip facing down.
Activate the device by twisting until it stops.
Droplets will come out and should be discarded.

5 Device is now used as a regular syringe.
Discard a drop before each test.

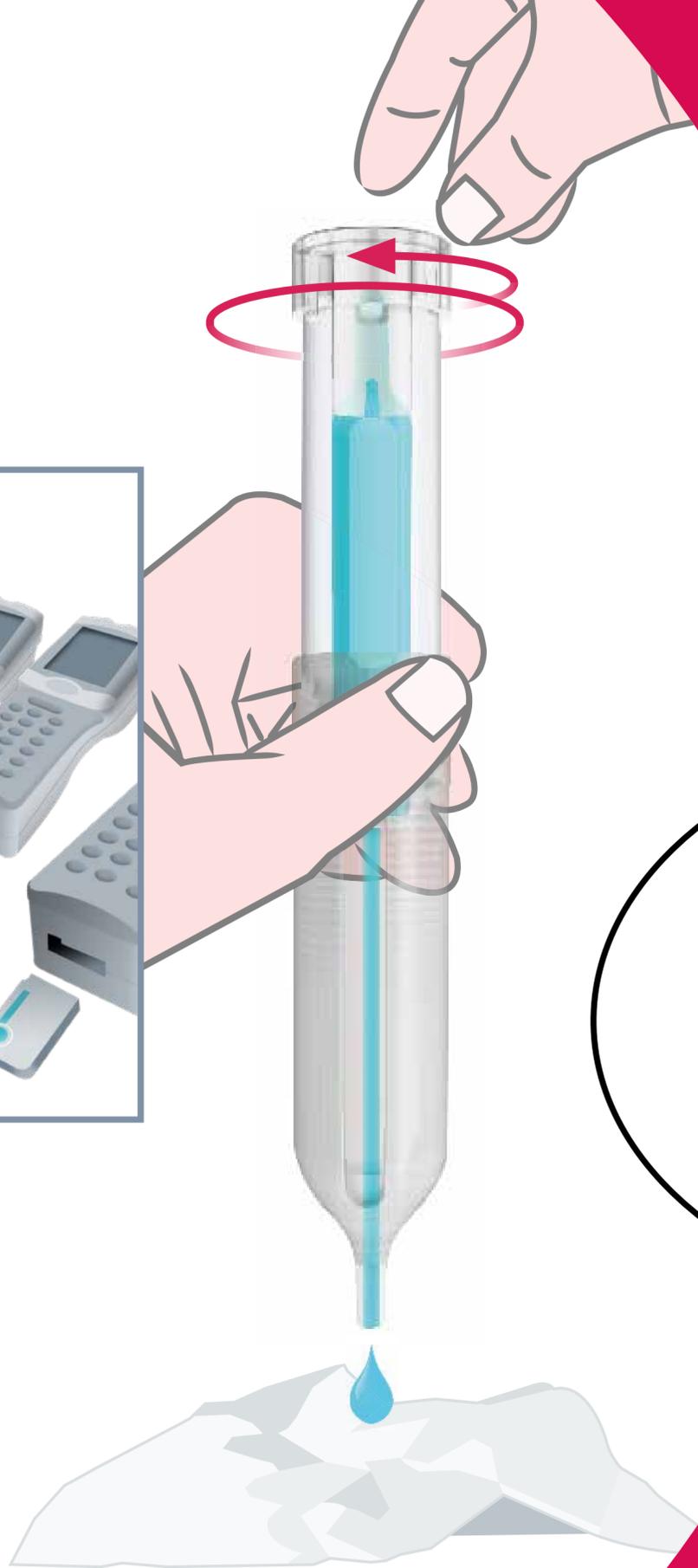
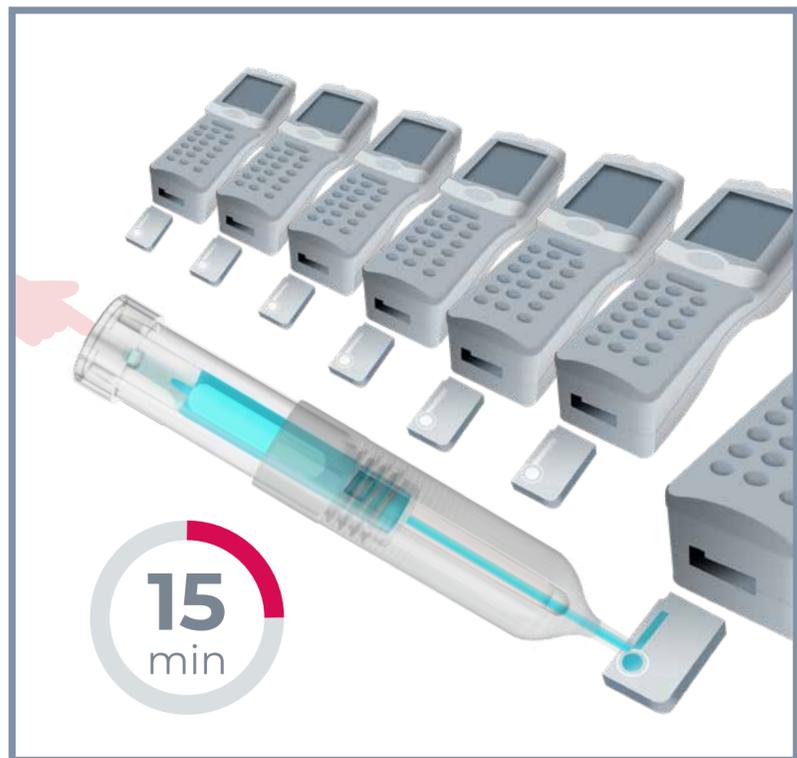
6 After activation device is stable for 15 minutes.
15 min

The following section highlights several general but important tips for using the CueSee® Ringe with blood-gas CueSee, both in aspiration and injection modes.

After equilibrating the CueSee® Ringe at room temperature for 48 hours, the gases inside the ampoule reach equilibrium. No vigorous shaking is required; the device is ready for immediate use!

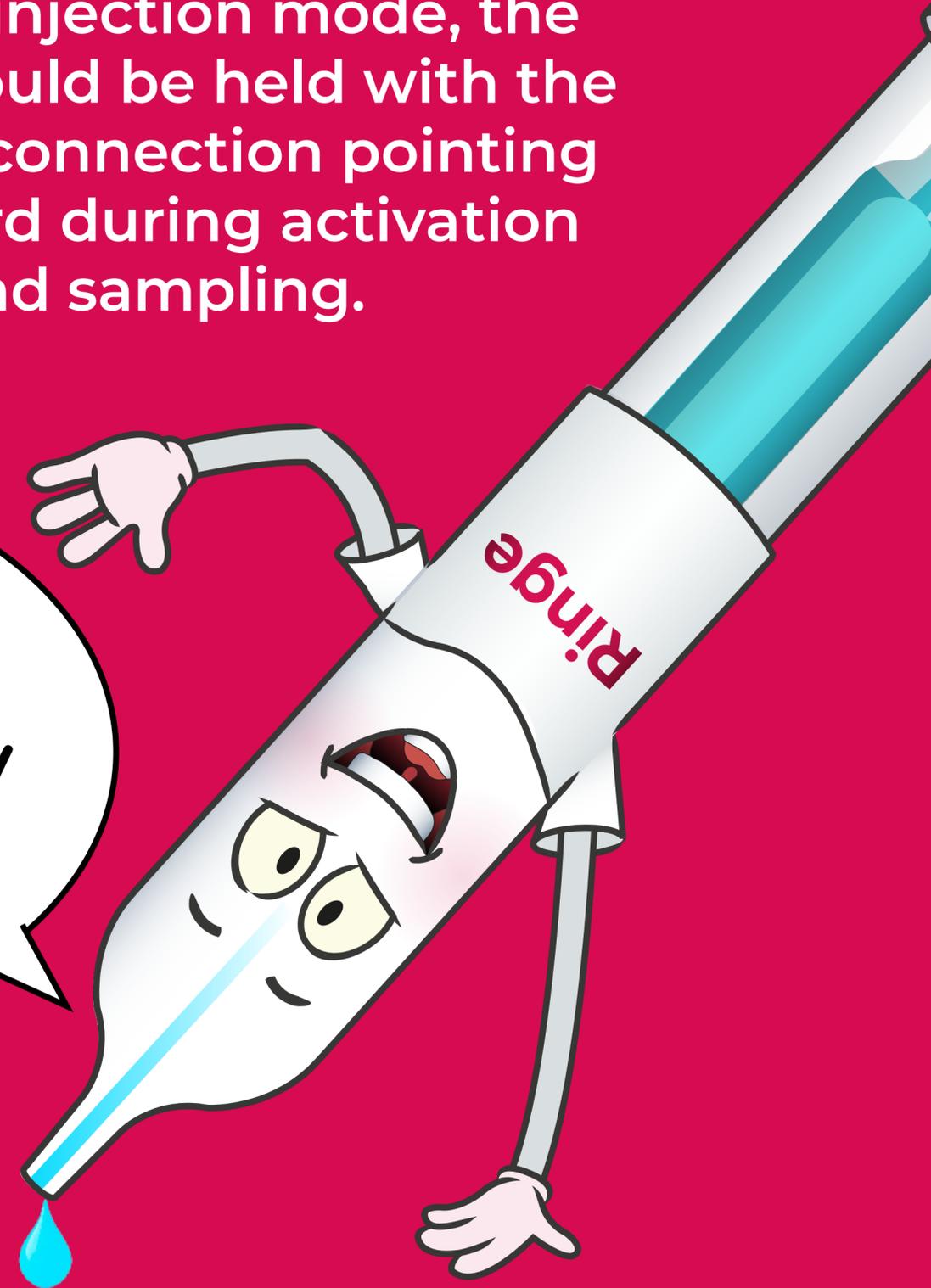


cuesee
Ringe



When using the CueSee® Ringe in injection mode, the device should be held with the Luer-slip connection pointing downward during activation and sampling.

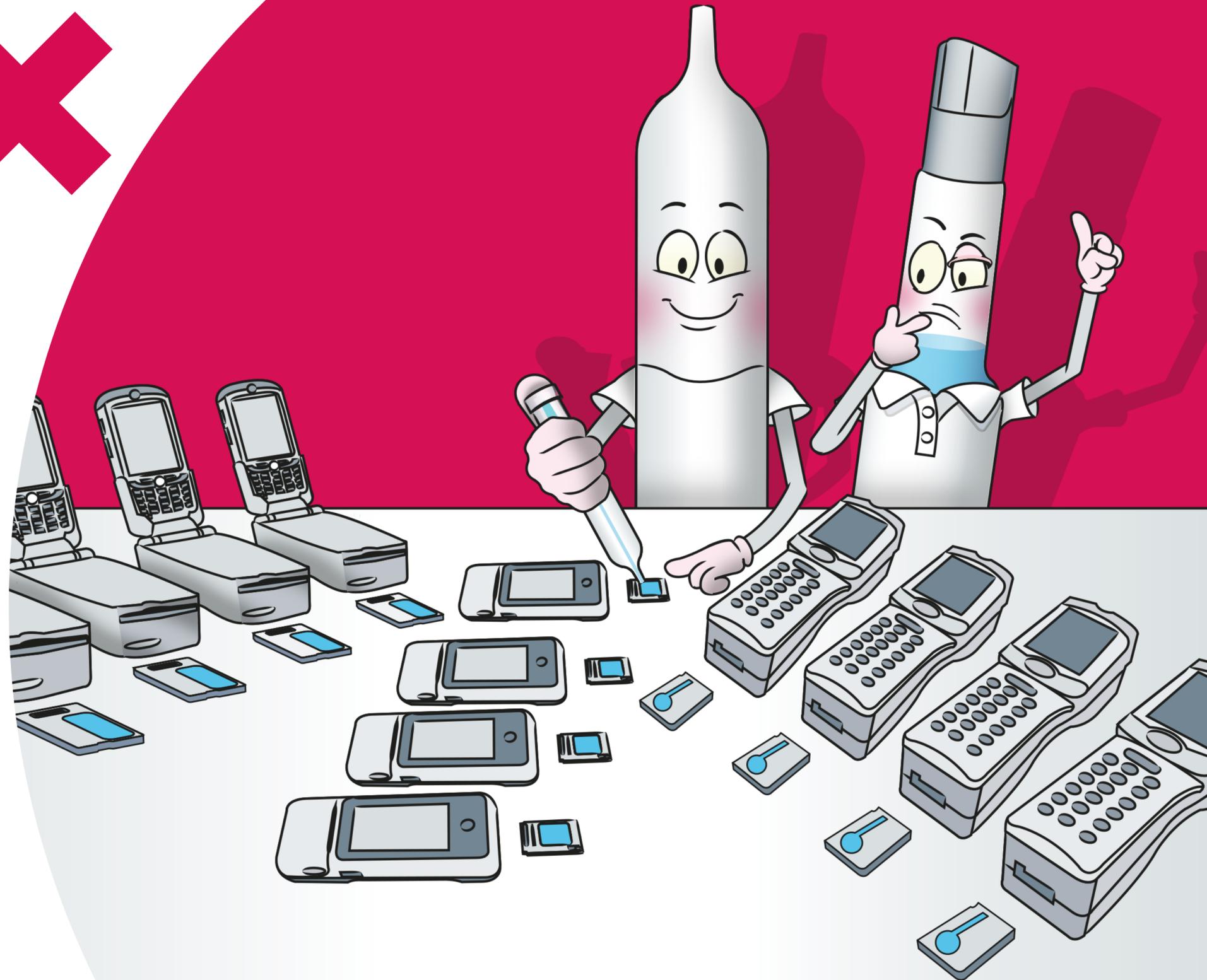
This is to prevent air bubble movement that may interfere with the measurement!



Incorrect Use **X**

Preloading a cartridge with sample and allowing it to remain on the bench prior to analysis is not acceptable.

Exposure to ambient air while in the cartridge allows oxygen diffusion into the sample, which leads to deviating pO_2 results.



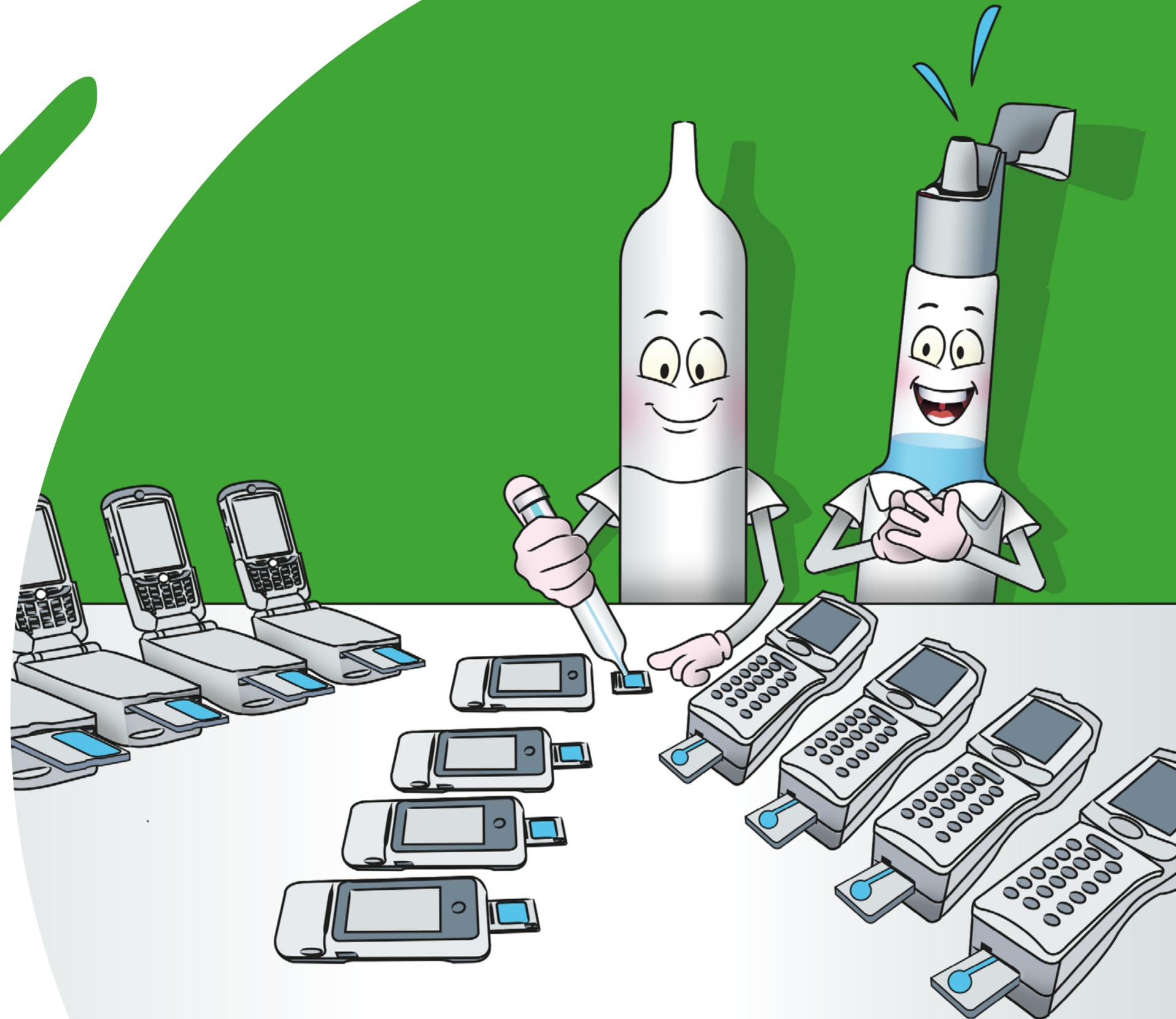
Correct Use



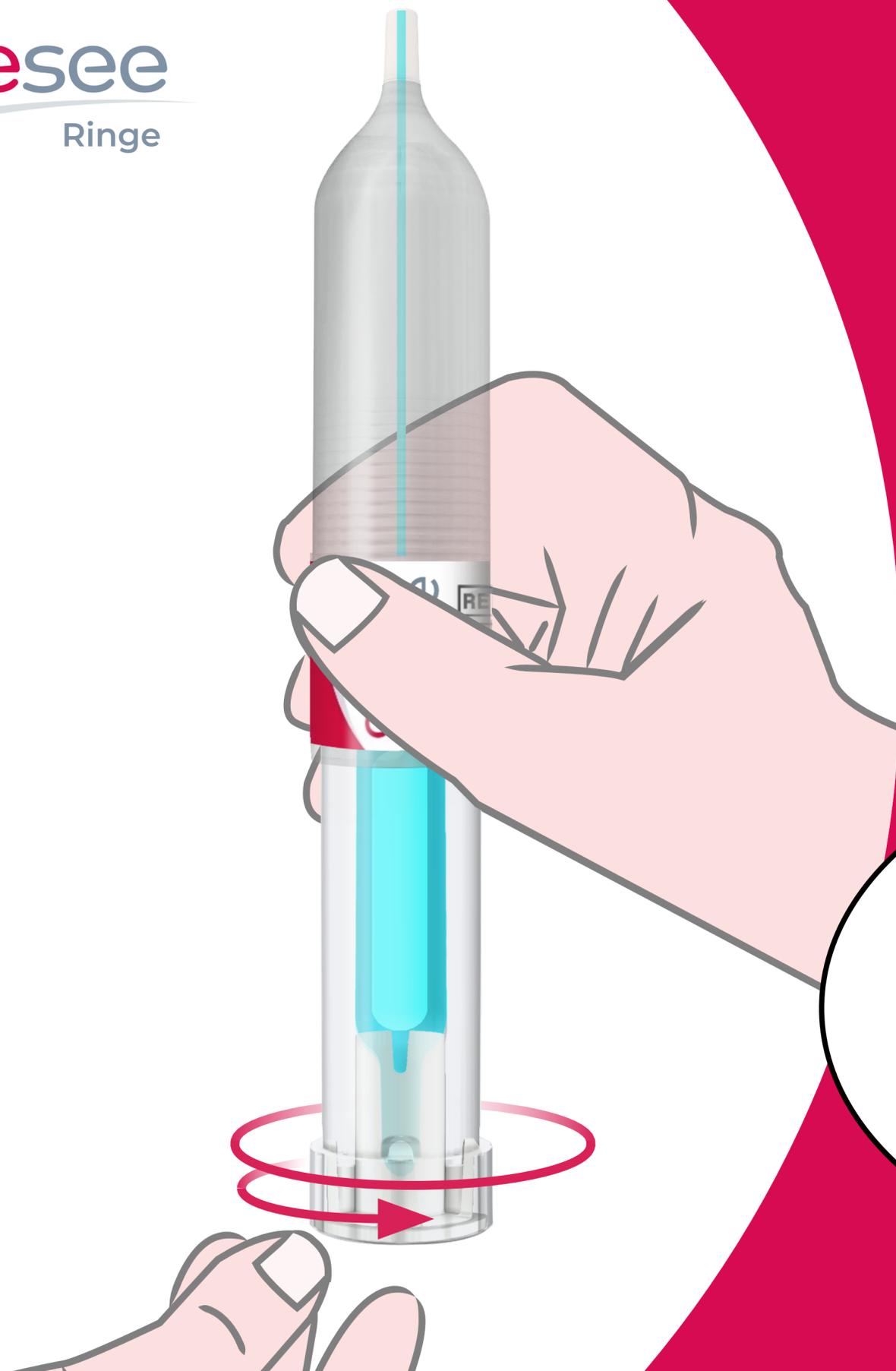
For reliable measurements apply the sample directly from the CSR and immediately insert the cartridge into the device, with no delay before test initiation.

Follow the same procedure for each subsequent device.

Compared with traditional ampoules, this workflow improves precision by eliminating ambient-air exposure.

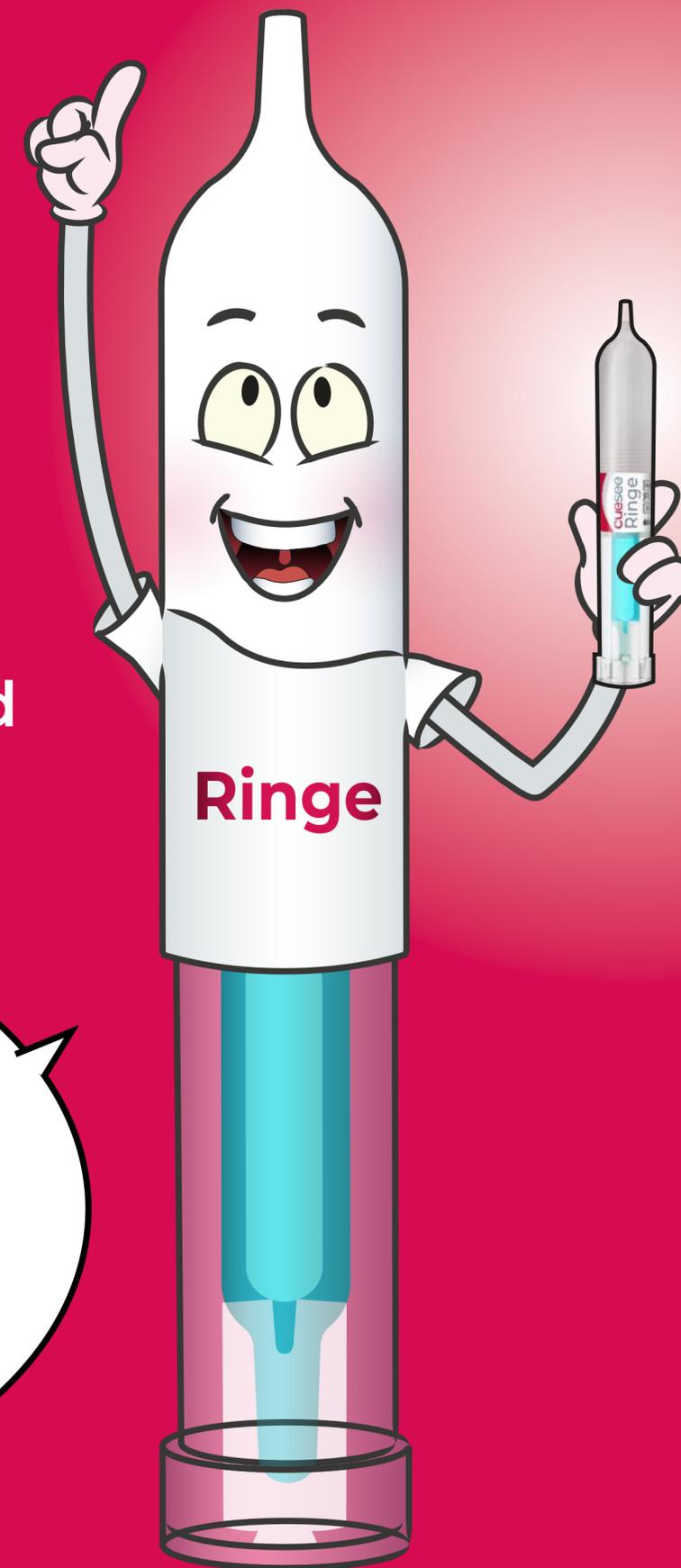


cuesee
Ringe



When using the CueSee® Ringe in aspiration mode, the device should be held with the Luer-slip connection pointing upward during activation and sampling.

This is to prevent air bubble movement that may interfere with the measurement!



cuesee
Ringe

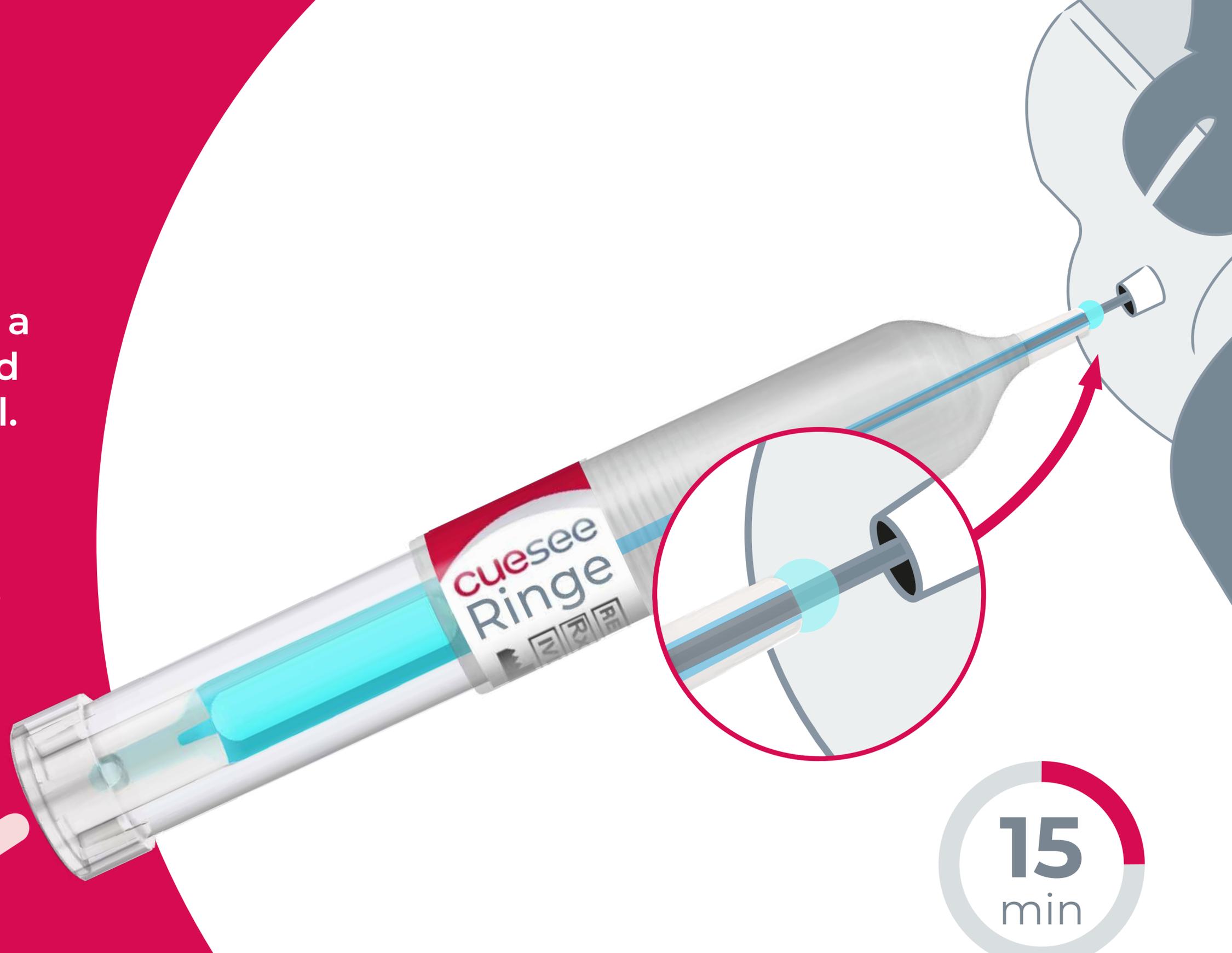
Once the needle is ready for sampling, immediately insert the needle fully into the sampling channel of the CueSee® Ringe to prevent air exposure; liquid spilling due to positive displacement is expected.



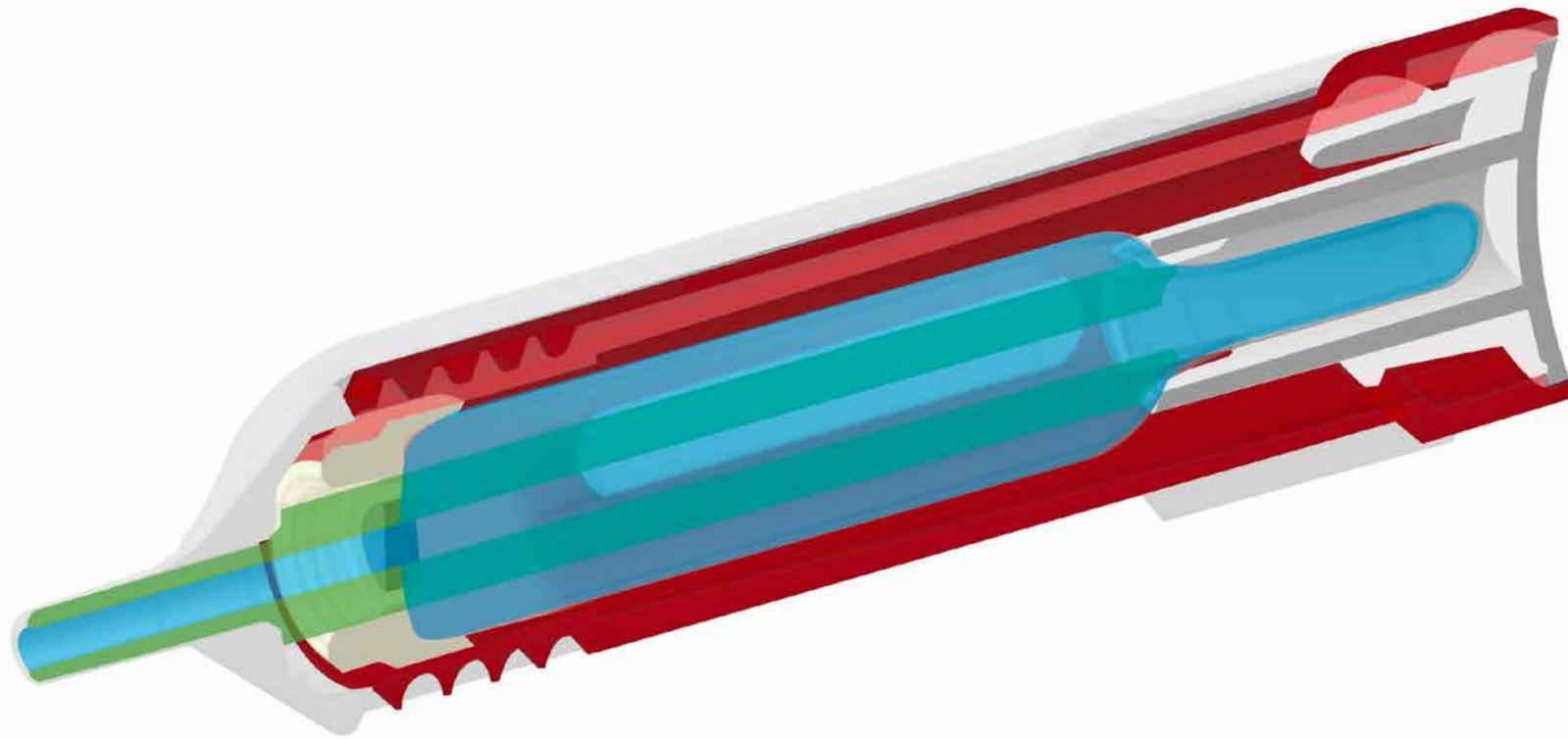
cuesee
Ringe

During aspiration,
maintain dosing to keep a
visible droplet at the end
of the sampling channel.

This prevents air from
entering the channel
and contaminating the
sample.



15
min



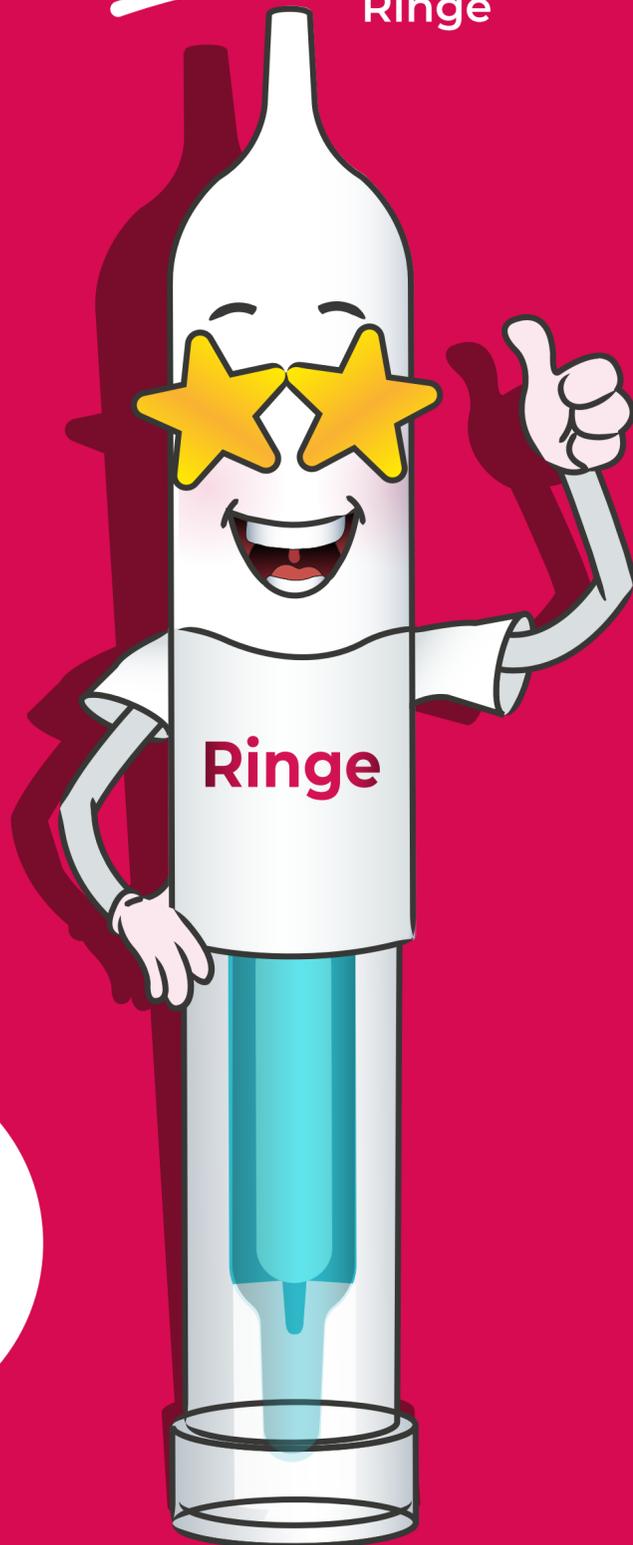
IMPORTANT NOTE

At the end of dosing, about 50% of the liquid remains in the ampoule by design.

This excess volume supports positive displacement sampling, ensuring that any potential oxygen exposure has minimal impact on sample quality.

Importantly, the CueSee® Ringe still provides approximately 2 mL of usable liquid, equal to the full volume of a traditional ampoule.

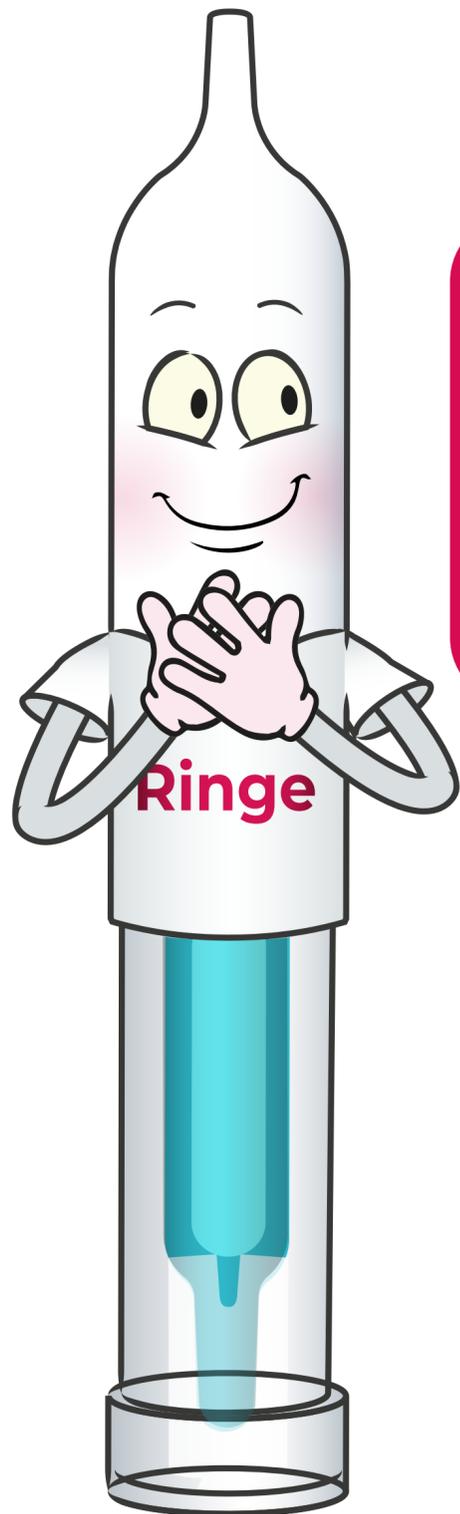
cuesee
Ringe



A market evaluation for CueSee® Ringe confirmed excellent performance, achieving an outstanding overall score!

Question	Score (1-5)
Overall Rating of CSR	4.6
User-Friendliness	4.8
Room Temperature Stability for 30 days	4.9
Activation of the CSR	4.8
Sampling with the CSR	4.9
In-Use stability of 15 minutes	5.0
Overall Score	4.8

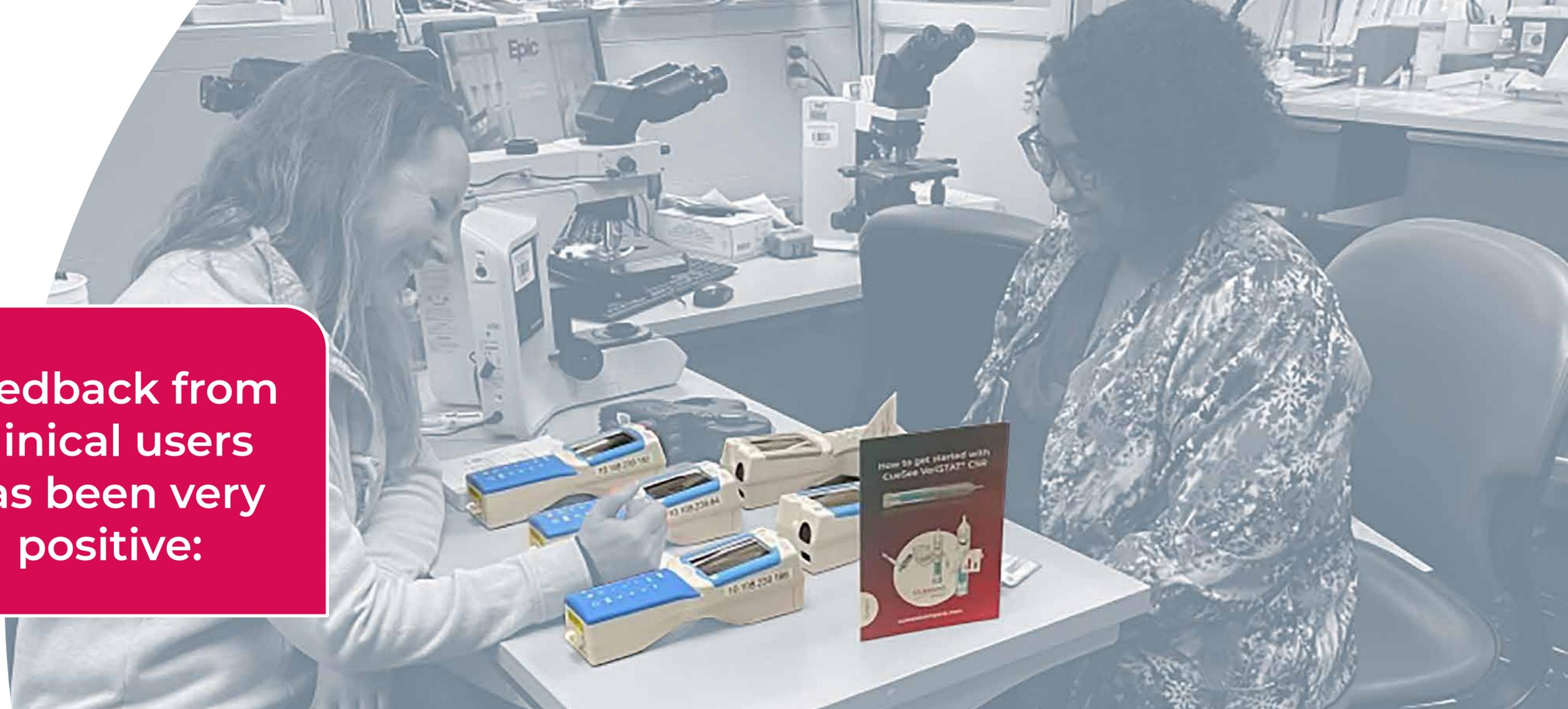
cuesee
Ringe



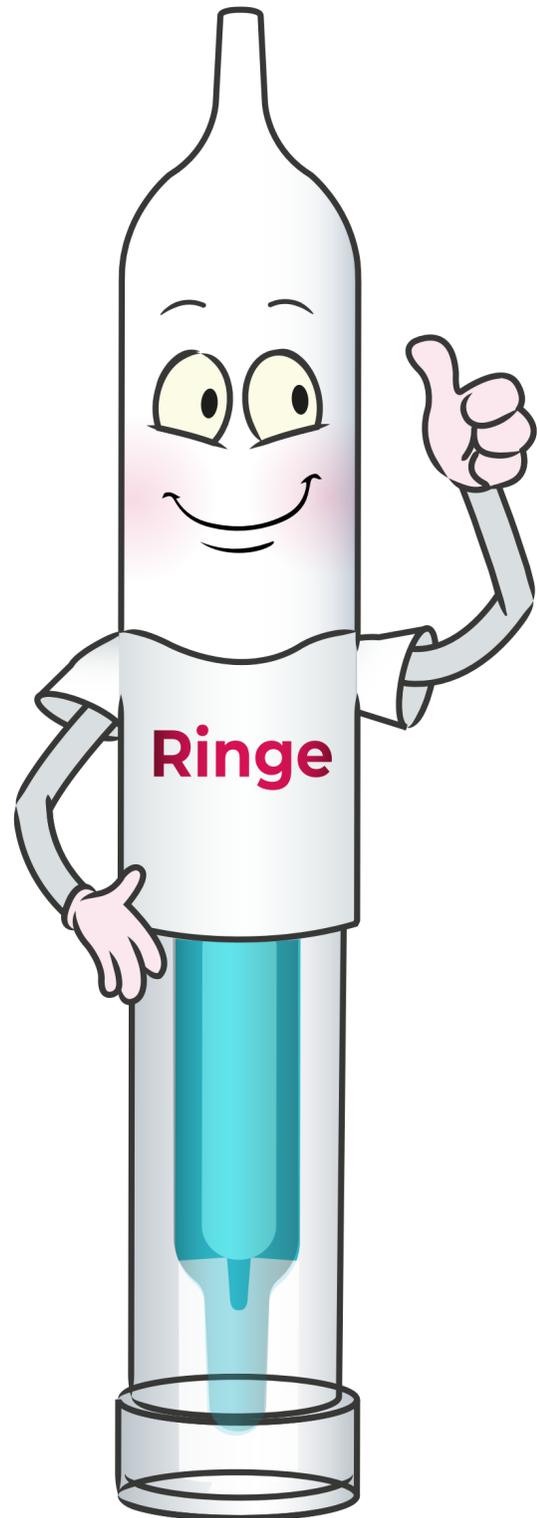
Feedback from
clinical users
has been very
positive:



I really did like it so much better than the traditional vials of LVM. You didn't feel so rushed to get the cartridges loaded and worried about the pO2 because of the 15 minutes stability of the product.



cuesee
Ringe



Summary of Key Benefits

- ✓ Safe and easy sampling
- ✓ No shaking required before use
- ✓ The best precision for gases
- ✓ **Open vial stability of 15 minutes!**
- ✓ Multiple tests with just ONE CueSee® Ringe
- ✓ Multiple tests mean lower costs per test