

Pulmonary Diagnostics: Calibration Vyntus SPIRO

Site Applicability

St. Paul's Hospital
Mount Saint Joseph Hospital

Practice Level

Respiratory Therapist

Need to Know

Calibrations are performed on a daily basis. Repeat calibrations may be necessary when large fluctuations in barometric pressure or ambient temperature (greater than 2 degrees Celsius) occur, if equipment parts are replaced/changed, or when troubleshooting equipment.

Spirometer PCs and associated hardware are managed and maintained by the Biomedical Engineering department.

Equipment and Supplies

Vyntus SPIRO and SentrySuite Enabled Laptop
3 L Calibrated Syringe with MicroGard Filter

Procedure

Steps

1. If not already done, connect Vyntus spirometer handle to laptop via USB cable. Verify spirometer handle serial number matches the serial number listed on the laptop.
2. Launch SentrySuite application from desktop.
3. From the system desktop, select "Calibration"
4. A "zero adjustment" pop-up window will appear. Hold the pneumotach handle still and upright. Click "okay" to proceed with zero adjustment of the pneumotach.
5. Confirm ambient conditions: ensure the ambient module is connected to the spirometer laptop via USB cable and values are automatically entered.
6. Attach calibration syringe with MicroGard filter to pneumotach.



7. Ensure “3-flow” calibration is selected then click F1 to start measurement.
8. To complete 3 flow calibration: pump the calibration syringe piston back and forth, smoothly, three times at each flowrate (low, medium, high) as indicated by the grey lines on the volume calibration graph. **NOTE:** the initial stroke is discarded.
9. Once completed, confirm that measurements are within acceptable limits ($3\text{ L} \pm 2.5\%$). Repeat calibration as necessary.

References

Vyaire Medical Instructions for Use Vyntus SPIRO V-781351-320 Version 01.00 for SentrySuite Software 3.20 or later.

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