

Information relating to Spirometry:

Relative contraindications

Spirometry and hypertension

Spirometry and menstrual cycle

Relative contraindications to spirometry*

Due to increases in myocardial demand or changes in blood pressure

- Acute myocardial infarction within 1 wk
- Systemic hypotension or severe hypertension
- Significant atrial/ventricular arrhythmia
- Noncompensated heart failure
- Uncontrolled pulmonary hypertension
- Acute cor pulmonale
- Clinically unstable pulmonary embolism
- History of syncope related to forced expiration/cough

Due to increases in intracranial/intraocular pressure

- Cerebral aneurysm
- Brain surgery within 4 wk
- Recent concussion with continuing symptoms
- Eye surgery within 1 wk

Due to increases in sinus and middle ear pressures

- Sinus surgery or middle ear surgery or infection within 1 wk

Due to increases in intrathoracic and intraabdominal pressure

- Presence of pneumothorax
- Thoracic surgery within 4 wk
- Abdominal surgery within 4 wk
- Late-term pregnancy

Infection control issues

* **Standardization of Spirometry 2019 Update**
An Official American Thoracic Society and European Respiratory Society
Technical Statement

Spirometry and hypertension

Three possible approaches, of equal acceptability:

1. spirometry is performed without any consideration of the subject's blood pressure
2. spirometry is performed only after measurement of each subject's blood pressure; and only if the blood pressure is below an arbitrarily set level*
3. spirometry is preceded by a question along the lines of 'since your last test have you been told by a doctor that you have high blood pressure that can't be controlled'; and is omitted in those who answer 'Yes', *without measuring the blood pressure.*

* >200/120 (Canadian Resp J 2013;20;13-22)

* 180/100 (NIOSH)

Spirometry and menstrual cycle

- no relationship in health
- small effect in women with asthma