

Guidance on spirometry:

Relative contraindications, hypertension, and the menstrual cycle

Relative contraindications

Source: [*Indications and contraindications of Spirometry - ERS Respiratory Channel*](#)

Due to increases in myocardial demand or changes in blood pressure:

- Acute myocardial infarction within 1 week
- Systemic hypotension or severe hypertension
- Significant atrial/ventricular arrhythmia
- Non-compensated 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 weeks
- Recent concussion with continuing symptoms
- Eye surgery within 1 week

Due to increases in sinus and middle ear pressures:

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

Due to increases in intrathoracic and intraabdominal pressure:

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

Infection control issues:

- Active or suspected transmissible respiratory or systemic infection, including tuberculosis
- Physical conditions predisposing to transmission of infections, such as haemoptysis, significant secretions, or oral lesions or oral bleeding

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:
>200/120 (Canadian Resp J 2013;20;13-22)
180/100 (NIOSH)
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*.

Spirometry and menstrual cycle

- No relationship in health
- Small effect in women with asthma

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