

## Contraindications to Pulmonary Function Testing.

Pulmonary function testing is generally considered safe for most individuals. Nevertheless, breathing tests can cause marked increases in both intra-thoracic and intra-abdominal pressures and for this reason testing is contraindicated for a variety of patient conditions. The risks and benefits for any individual patient should be considered whenever pulmonary function tests are ordered.

| Contraindication:                          | Complication:   | Likelihood: | Severity: | Risk: |
|--|-----------------|-------------|-----------|-------|
| MI (recent)                                | Death           | 5           | 5         | 25    |
| MI (recent)                                | Further MI      | 5           | 5         | 25    |
| PE (untreated)                             | Death           | 4           | 5         | 25    |
| Ascending Aortic Aneurysm (>6 cm dilation) | Death           | 4           | 5         | 20    |
| Ascending Aortic Aneurysm (>6 cm dilation) | MI              | 4           | 4         | 16    |
| Pneumothorax                               | Lung collapse   | 3           | 4         | 12    |
| Thoracic surgery                           | Further surgery | 3           | 4         | 12    |
| Pneumothorax                               | Pain            | 5           | 2         | 10    |
| Ascending Aortic Aneurysm (<6 cm dilation) | Death           | 2           | 5         | 10    |
| Thoracic surgery                           | Death           | 2           | 5         | 10    |
| Hemoptysis                                 | Bleed           | 2           | 4         | 8     |
| Angina                                     | MI              | 2           | 4         | 8     |
| Ascending Aortic Aneurysm (<6 cm dilation) | MI              | 2           | 4         | 8     |
| Eye surgery (<1 week)                      | Undo surgery    | 2           | 3         | 6     |
| Abdominal surgery                          | Pain            | 3           | 2         | 6     |
| Thoracic surgery                           | Pain            | 3           | 2         | 6     |
| Hemoptysis                                 | Death           | 1           | 5         | 5     |
| Pneumothorax                               | Discomfort      | 5           | 1         | 5     |
| MI (>1 week)                               | Death           | 1           | 5         | 5     |
| PE (treated)                               | Death           | 1           | 5         | 5     |
| Hemoptysis                                 | PE              | 1           | 4         | 4     |
| Acute diarrhea                             | Discomfort      | 4           | 1         | 4     |
| Abdominal surgery                          | Rupture         | 1           | 4         | 4     |
| Angina                                     | Pain            | 2           | 2         | 4     |
| PE (treated)                               | Hypoxia         | 1           | 3         | 3     |
| Eye surgery (<4 week)                      | Undo surgery    | 1           | 3         | 3     |
| Eye surgery (<4 week)                      | Pain            | 1           | 2         | 2     |
| MI (>1 week)                               | Pain            | 1           | 2         | 2     |

| Likelihood: | Severity:                              | Risk:           |
|-------------|--|-----------------|
| 1 <1%       | 1 Discomfort                           | 1-4 Low         |
| 2 2-10%     | 2 Pain                                 | 5-9 Moderate    |
| 3 11-20%    | 3 Syncope/bleeding                     | 10-19 High      |
| 4 20-50%    | 4 Tissue Damage, minor surgery         | 20-25 Very High |
| 5 >50%      | 5 Emergency care, major surgery, death |                 |

Source: Cooper BG. An update on contraindications for lung function testing. Thorax 2011; 66: 714-723.