CARDIOVASCULAR/THORACIC SURGERY PROFILE

GENERAL INFORMATION
(Sources: Canadian Medical Residency Guide, Royal College)

For purposes of presenting the data provided in the National Physician Survey (NPS), the specialties of cardiac surgery and thoracic surgery are combined (and will henceforth be referred to as CVT surgery). However, The Royal College of Physicians and Surgeons of Canada separate these specialties for certification purposes and as such, the following description and training requirements appear for both.

Cardiac Surgery

Cardiac surgery is the area of surgery that deals with diseases of the pericardium, heart and vessels. Procedures that are performed include coronary artery bypass, valve repair or replacement, heart transplantation, replacement of the aorta, pulmonary thromboendarterectomy and procedures to correct congenital abnormalities. It is a demanding, technical specialty that is very diverse. It exposes practitioners to a wide variety of medical problems and requires them to interact often with other physicians including the operating room team comprised of specialized nurses, technicians and anesthetists.
After completing medical school, there are three pathways one can take to become certified in cardiac surgery that include 6 years of approved residency training in the disciplines of core general surgery, cardiac, vascular and thoracic surgery.

For further details on training requirements go to: [http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route](http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route)

**Thoracic Surgery**

Thoracic surgery is the branch of surgery concerned with congenital and acquired diseases of the chest wall, mediastinum, lungs, trachea, pleura, esophagus and diaphragm.

After completing medical school, to become certified in thoracic surgery requires that you first obtain Royal College Certification in general surgery, cardiac surgery, or enrolment in a Royal College-approved training program in these areas. All candidates must be certified in their primary specialty in order to be eligible to write the Royal College certification examination in thoracic surgery.

For further details on training requirements go to: [http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route](http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route)
CVT surgeons have a great deal of direct patient contact, which can be viewed as a positive aspect of this specialty. While patients are often seriously ill, treatment can result in immediate and dramatic improvement. It involves long and irregular hours, which can take its toll on the physician’s personal lifestyle. Life-and-death situations and emergencies requiring rapid, critical decisions are major causes of pressure within this specialty.

There are currently 352 CVT surgeons practicing in Canada. Of these, a mere 2% are under the age of 35, with the majority (53%) aged 35-54. Forty-three percent are aged 55 or older. An overwhelming 91% of CVT surgeons are male and only 9% are female. (Source: 2013 CMA Masterfile).

Canadian Cardiovascular Society
http://www.ccs.ca/home/index_e.aspx
Number of physicians and physicians/100,000 population in Cardiovascular/Thoracic Surgery in Canada, 2015

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Physicians</th>
<th>Phys/100k pop'n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newfoundland/Labrador</td>
<td>6</td>
<td>1.1</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>14</td>
<td>1.5</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>8</td>
<td>1.1</td>
</tr>
<tr>
<td>Quebec</td>
<td>75</td>
<td>0.9</td>
</tr>
<tr>
<td>Ontario</td>
<td>148</td>
<td>1.1</td>
</tr>
<tr>
<td>Manitoba</td>
<td>15</td>
<td>1.2</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>9</td>
<td>0.8</td>
</tr>
<tr>
<td>Alberta</td>
<td>40</td>
<td>1.0</td>
</tr>
<tr>
<td>British Columbia</td>
<td>48</td>
<td>1.0</td>
</tr>
<tr>
<td>Territories</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>CANADA</strong></td>
<td><strong>363</strong></td>
<td><strong>1.0</strong></td>
</tr>
</tbody>
</table>

Source: 2015 CMA Masterfile
Physicians/100,000 population in **Cardiovascular/Thoracic Surgery** in Canada, 1995 to 2013

Source: CMA Masterfile
Cardiovascular/Thoracic Surgeons by gender and year in Canada, 1995 to 2015

Source: CMA Masterfile
Cardiovascular/Thoracic Surgeons by age and gender in Canada, 2015

Gender
- Male: 89%
- Female: 11%

Age Group
- 34 and under: 2%
- 35 - 44: 22%
- 45 - 54: 31%
- 55 - 64: 27%
- 65 and over: 18%

Source: 2015 CMA Masterfile
Cardiovascular/Thoracic Surgeons by age and gender in Canada, 2015

- **65 and over**: 62 Male, 1 Female
- **55-64**: 77 Male, 16 Female
- **45-54**: 101 Male, 9 Female
- **35-44**: 65 Male, 12 Female
- **34 and Under**: 6 Male

Source: 2015 CMA Masterfile
Main work setting of **Cardiovascular/Thoracic Surgeons** in Canada, 2014

- **Academic Health Sciences Centre**: 64%
- **Community Hospital**: 12%
- **Non-AHSC Teaching Hospital**: 11%
- **Free-standing Lab/Diag Clinic**: 3%
- **Free-standing Walk-in Clinic**: 3%
- **Private Office/Clinic**: 3%
- **University**: 1%

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Practice organization for **Cardiovascular/Thoracic Surgeons** in Canada, 2014

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
# Hours worked per week (excluding on-call) by Cardiovascular/Thoracic Surgeons in Canada, 2014

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours worked per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct patient care without teaching component</td>
<td>30.6</td>
</tr>
<tr>
<td>Direct patient care with teaching component</td>
<td>14.2</td>
</tr>
<tr>
<td>Teaching without patient care</td>
<td>4.0</td>
</tr>
<tr>
<td>Indirect patient care</td>
<td>6.1</td>
</tr>
<tr>
<td>Health facility committees</td>
<td>1.3</td>
</tr>
<tr>
<td>Administration</td>
<td>3.6</td>
</tr>
<tr>
<td>Research</td>
<td>2.8</td>
</tr>
<tr>
<td>Managing practice</td>
<td>3.4</td>
</tr>
<tr>
<td>Continued professional development</td>
<td>3.2</td>
</tr>
<tr>
<td>Other</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>TOTAL HOURS PER WEEK</strong></td>
<td><strong>69.6</strong></td>
</tr>
</tbody>
</table>

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
On-call duty hours spent per month by Cardiovascular/Thoracic Surgeons in Canada, 2014

- Up to 120 hrs/month: 25%
- More than 120, up to 180 hrs/month: 22%
- More than 180, up to 240 hrs/month: 22%
- More than 240 hrs/month: 2%
- No response: 2%

Time spent on call in direct patient care = 49 hrs./month

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Remuneration for **Cardiovascular/Thoracic Surgeons** in Canada

**Primary payment method** in 2013

- 50% 90% + fee-for-service
- 28% 90% + salary
- 10% 90% + other*
- 8% Blended
- 5% NR

* Other includes capitation, sessional, contract and other methods

Average gross clinical earnings for Thoracic/cardiovascular surgery in 2013/14 (those earning at least $60,000) = $475,337

Average percent overhead reported by all surgeons in 2010 = 28.4%

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1 National Physician Survey, 2013, CFPC, CMA, Royal College
2 National Physician Database, 2013/14, CIHI
3 National Physician Survey, 2010, CFPC, CMA, Royal College
Satisfaction among Cardiovascular/Thoracic Surgeons in Canada, 2013

- **Balance of personal & professional commitments**
  - Very dissatisfied: 3%
  - Dissatisfied: 10%
  - Neutral: 32%
  - Satisfied: 22%
  - Very satisfied: 21%
  - NR: 13%

- **Current professional life**
  - Very dissatisfied: 3%
  - Dissatisfied: 14%
  - Neutral: 21%
  - Satisfied: 28%
  - Very satisfied: 25%

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
Cardiovascular/Thoracic Surgeons who are Royal College, CFPC or CMQ certified in Canada, 2014

![Bar chart showing certification percentages]

- Royal College: 97%
- CFPC: 3%
- CMQ: 11%
- Outside Canada: 20%

Note: Physicians could indicate more than one certification body.

Source: 2014 National Physician Survey. CFPC, CMA, Royal College
Number of **Cardiovascular/Thoracic Surgeons who retired during the THREE year period of 2012 to 2014**

Source: CMA Masterfile – year over year comparisons

Note: “Retired” is based on giving up licence and is therefore excludes those who have retired from clinical practice but are still licensed; it includes physicians who have temporarily given up their licence but may return to practice at a later date.
Total and Ministry funded postgraduate MD trainees in 2014/15 – Cardiovascular/Thoracic surgery

<table>
<thead>
<tr>
<th>Faculty of Medicine</th>
<th>Ministry funded</th>
<th>Total</th>
<th>Faculty of Medicine</th>
<th>Ministry funded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial U N&amp;L</td>
<td>0</td>
<td>0</td>
<td>McMaster U</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Dalhousie U</td>
<td>3</td>
<td>7</td>
<td>UWO</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>U Laval</td>
<td>3</td>
<td>9</td>
<td>NOSM</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>U Sherbrooke</td>
<td>0</td>
<td>0</td>
<td>U Manitoba</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>U Montréal</td>
<td>4</td>
<td>9</td>
<td>U Sask</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>McGill U</td>
<td>5</td>
<td>13</td>
<td>U Alberta</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>U Ottawa</td>
<td>6</td>
<td>9</td>
<td>U Calgary</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Queens U</td>
<td>0</td>
<td>0</td>
<td>UBC</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>U Toronto</td>
<td>5</td>
<td>30</td>
<td>Canada</td>
<td>50</td>
<td>125</td>
</tr>
</tbody>
</table>

*Includes Thoracic Surgery (Cardiac Surg.)

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
First year and exiting postgraduate-MD trainees in 2014/15 – Cardiovascular/Thoracic Surgery

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Postgraduate-MD trainees in 2014/15 – Cardiovascular/Thoracic Surgery

- Total of 11 first year Cardiac Surgery trainees representing 22% of all Cardiovascular/Thoracic Surgery trainees.

- Total of 50 Cardiac Surgery trainees representing 0.4% of all Ministry funded trainees.

- Total of 64 visa trainees in Cardiac Surgery.

- Total of 10 Cardiac Surgery trainees completed postgraduate training in 2014.

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Location of 2013 Postgraduate-MD exits in 2015 – Cardiovascular/Thoracic Surgery

Of the 6 exits in 2013, 4 (67%) were known to be practising in Canada

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Stress associated with finding employment at end of residency

<table>
<thead>
<tr>
<th></th>
<th>NR/NA</th>
<th>Not stressful</th>
<th>Somewhat stressful</th>
<th>Very stressful</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM resident</td>
<td>7%</td>
<td>43%</td>
<td>42%</td>
<td>8%</td>
</tr>
<tr>
<td>Other spec res</td>
<td>6%</td>
<td>20%</td>
<td>50%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: 2012 National Physician Survey of residents. CFPC, CMA, Royal College
Links to the organizations supplying information for this document

National Physician Survey
http://www.nationalphysiciansurvey.ca

Canadian Medical Association
http://www.cma.ca/pdc

Association of Faculties of Medicine of Canada
http://www.caper.ca/

Royal College of Physicians and Surgeons of Canada
http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route

College of Family Physicians of Canada
http://www.cfpc.ca

Canadian Institute for Health Information
http://www.cihi.ca