ORTHOPEDIC SURGERY PROFILE

Orthopedic surgery focuses on the diagnosis, treatment, rehabilitation and prevention of diseases of the bones, joints, ligament, muscles, tendons and nerves. These specialists employ medical, physical, rehabilitation and surgery to restore normal function. It is estimated that approximately half of an orthopedic surgeon’s practice is devoted to non-surgical or medical management of injuries and disease, and half to surgical treatments.

Originally dedicated to the care of children with spine and limb deformities, orthopedic surgery now cares for patients of all ages, from newborns who have clubfeet to young athletes requiring arthroscopic surgery to older people suffering with arthritis.

Orthopedic surgeons treat diseases and conditions, such as:
- fractures and dislocations
- torn ligaments, sprains and strains
- tendon injuries, pulled muscles and bursitis
- ruptured disks, sciatica, lower back pain and scoliosis
- abnormalities of the fingers and toes and growth abnormalities
- surgical management of degenerative joint disease
- knock knees, bow legs, bunions and hammer toes
- arthritis and osteoporosis
- bone tumors, muscular dystrophy and cerebral palsy
- club feet and unequal leg length

Orthopedic surgeons may engage in a broad practice or may focus on a narrower area of special interest, such as the spine, hip, foot, hand or sports medicine. It is a dynamic field that has witnessed much advancement in techniques and equipment, such as microsurgery and joint replacements.

Upon completion of medical school, to become certified in orthopedic surgery requires an additional **5 years of Royal College-approved residency training**.
This training includes:
- 24 months of foundational surgery training as a junior resident. This must include a minimum of 6 months but no more than 12 months as a junior resident in orthopedic surgery. This must include a minimum of 1 month in ICU, general surgery, internal medicine or its relevant sub-specialties;
- 36 months of further residency training that includes: at least 6 months in pediatric orthopedic surgery;
- at least three 3 months in each of the following rotations: trauma, sports medicine, community orthopedic surgery, spine surgery, oncologic orthopedic surgery; and at least three months of adult reconstruction/arthroplasty in each of the following: upper limb, foot and ankle.

For more detailed training requirements for orthopedic surgery go to: http://www.royalcollege.ca/portal/page/portal/rc/credentials/start/routes/traditional_route

For The Canadian Orthopedic Association: http://www.coa-aco.org/
Number of physicians and physicians/100,000 population for Orthopedic Surgery

<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>22</td>
<td>4.3</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>48</td>
<td>5.1</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>35</td>
<td>4.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>361</td>
<td>4.5</td>
</tr>
<tr>
<td>Ontario</td>
<td>567</td>
<td>4.2</td>
</tr>
<tr>
<td>Manitoba</td>
<td>54</td>
<td>4.3</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>37</td>
<td>3.4</td>
</tr>
<tr>
<td>Alberta</td>
<td>151</td>
<td>3.9</td>
</tr>
<tr>
<td>British Columbia</td>
<td>226</td>
<td>4.9</td>
</tr>
<tr>
<td>Territories</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>CANADA</td>
<td>1509</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Source: 2013 CMA Masterfile
Physicians/100,000 population for **Orthopedic Surgery**
Canada, 1995 to 2013

Source: 2013 CMA Masterfile
Orthopedic Surgeons by gender and year
Canada, 1995 to 2013

Source: 2013 CMA Masterfile
Orthopedic Surgeons by age and gender
Canada, 2013

Gender
- Males
- Females

Age group
- < 35
- 35 to 44
- 45 to 54
- 55 to 64
- 65 +
- Unknown Age

Source: 2013 CMA Masterfile
Orthopedic Surgeons by age and gender

Canada, 2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>54</td>
<td>27</td>
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<tr>
<td>35 to 44</td>
<td>367</td>
<td>54</td>
</tr>
<tr>
<td>45 to 54</td>
<td>339</td>
<td>40</td>
</tr>
<tr>
<td>55 to 64</td>
<td>296</td>
<td>12</td>
</tr>
<tr>
<td>65+</td>
<td>274</td>
<td>2</td>
</tr>
<tr>
<td>Unknown age</td>
<td>41</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: 2013 CMA Masterfile
Main Work Setting of Orthopedic Surgeons
Canada, 2013

Community hosp: 25%
Acad H Sc Centre: 24%
Private office/clinic: 21%
Non-AHSC teach hosp: 10%
Community clinic: 3%
Admin office: 2%
Other: 6%

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
Practice Organization of Orthopedic Surgeons
Canada, 2013

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
# Hours worked per week (excluding on-call) by Orthopedic Surgeons

<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>26.72</td>
</tr>
<tr>
<td>Direct patient care with teaching component</td>
<td>11</td>
</tr>
<tr>
<td>Teaching without patient care</td>
<td>1.6</td>
</tr>
<tr>
<td>Indirect patient care</td>
<td>5.0</td>
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<tr>
<td>Health facility committees</td>
<td>1.0</td>
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<tr>
<td>Administration</td>
<td>2.4</td>
</tr>
<tr>
<td>Research</td>
<td>1.8</td>
</tr>
<tr>
<td>Managing practice</td>
<td>1.9</td>
</tr>
<tr>
<td>Continued professional development</td>
<td>3.2</td>
</tr>
<tr>
<td>Other</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>TOTAL HOURS PER WEEK</strong></td>
<td><strong>57.0</strong></td>
</tr>
</tbody>
</table>

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
On-Call Duty Hours per Month for Orthopedic Surgery Canada, 2013

- Up to 120 hrs/month
- 121 to 180 hrs/month
- 181 to 240 hrs/month
- > 240 hrs/month
- No response

Time spent on call spent in direct patient care = 54 hrs/month

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
Remuneration for Orthopedic Surgery

Primary payment method$^1$

- 90% + fee-for-service
- 90% + salary
- 90% + other*
- Blended
- NR

* Other includes capitation, sessional, contract and other methods

Average gross clinical earnings in 2011/12 (those earning at least $60,000) = $389,268$^2$

Average percent overhead reported by all surgeons in 2010 = 28.4%$^3$

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$^1$ National Physician Survey, 2013, CFPC, CMA, Royal College
$^2$ National Physician Database, 2010/11, CIHI
$^3$ National Physician Survey, 2010, CFPC, CMA, Royal College
Satisfaction among Orthopedic Surgery Canada, 2013

Source: 2013 National Physician Survey. CFPC, CMA, Royal College
## Total and Ministry funded postgraduate MD trainees in 2012/13 - Orthopedic 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>
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<td>McMaster U</td>
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<td>45</td>
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<tr>
<td>Dalhousie U</td>
<td>15</td>
<td>22</td>
<td>UWO</td>
<td>28</td>
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<tr>
<td>U Laval</td>
<td>27</td>
<td>27</td>
<td>NOSM</td>
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<tr>
<td>U Sherbrooke</td>
<td>22</td>
<td>22</td>
<td>U Manitoba</td>
<td>19</td>
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<tr>
<td>U Montréal</td>
<td>35</td>
<td>40</td>
<td>U Sask</td>
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<tr>
<td>McGill U</td>
<td>27</td>
<td>48</td>
<td>U Alberta</td>
<td>17</td>
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<tr>
<td>U Ottawa</td>
<td>30</td>
<td>41</td>
<td>U Calgary</td>
<td>31</td>
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<tr>
<td>Queens U</td>
<td>18</td>
<td>24</td>
<td>UBC</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>U Toronto</td>
<td>62</td>
<td>137</td>
<td>Canada</td>
<td>425</td>
<td>630</td>
</tr>
</tbody>
</table>

Source: 2012/13 Annual Census of Post-MD Trainees, CAPER
First year and exiting postgraduate-MD trainees in 2012/13 – Orthopedic Surgery

Source: 2012/13 Annual Census of Post-MD Trainees, CAPER
Postgraduate-MD trainees in 2012/13 – **Orthopedic Surgery**

- Total of 84 first year Orthopedic Surgery trainees representing 20% of all Orthopedic Surgery trainees.
- Total of 425 Orthopedic Surgery trainees representing 4% of all Ministry funded trainees.
- Total of 114 visa trainees in Orthopedic Surgery.
- Total of 72 Orthopedic Surgery trainees completed postgraduate training in 2012.

Source: 2012/13 Annual Census of Post-MD Trainees, CAPER
Of the 72 exits in 2011, 61 (85%) were known to be practising in Canada

Source: 2012/13 Annual Census of Post-MD Trainees, CAPER
Stress associated with finding employment at end of residency

Source: 2012 National Physician Survey of residents. CFPC, CMA, Royal College
Number of **Orthopedic Surgeons** who retired during THREE year period of 2010 to 2012

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.
Percentage of **Orthopedic Surgeons** who are Royal College, CFPC or CMQ certified

Note: Subset of those who reported a certification. Physicians could indicate more than one certification body.

Source: 2013 National Physician Survey. 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/c3pr

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