

Biomedical Engineer

Medical devices, implants and hospital equipment. A small job market, and often a stepping stone to medicine or grad school.

TYPICAL PAY

\$104,000

a year, full time

PAY RANGE

\$58k to \$171k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

Yes

regulated job

WHERE YOU WORK

Medical device companies, hospitals, research labs, regulators

How you get there

- 1 High school** Grades 11 and 12
Advanced Functions, Calculus, Physics, Chemistry and usually Biology. Marks in the high 80s to low 90s.
- 2 Accredited biomedical engineering degree** 4 to 5 years with co-op
A four-year Bachelor of Engineering or Applied Science at a school accredited by the Canadian Engineering Accreditation Board. Mechanical or electrical engineering with a biomedical option is just as accepted by employers.
- 3 Engineer-in-training** About 4 years
Register with your provincial regulator and work under a licensed engineer at a device company or hospital.
- 4 Professional practice exam** During your EIT (engineer-in-training) years
A law and ethics exam, taken during your training years.
- 5 P.Eng (professional engineer) licence** After 4 years
Apply with your experience record and references. Or skip it: a master's, PhD or medical school are the other common next steps.

Pros and cons

- + Your work ends up in a patient's body or a hospital room
- + Keeps medicine, grad school and industry all open
- + Hospital jobs come with strong pensions and stable hours
- Fewer jobs than graduates, especially at entry level
- Entry-level pay often trails the other engineering disciplines
- Heavy regulatory paperwork

Good to know

The pacemaker is Canadian

John Hopps, an electrical engineer at the National Research Council in Ottawa, built the first external cardiac pacemaker in 1950. Wearable implanted versions came later, but the idea started here.

Every device gets a class

Health Canada sorts medical devices into Class I (a tongue depressor) up to Class IV (a heart valve). The higher the class, the more testing and paperwork a biomedical engineer has to produce before it can b...

Optional boosts

Regulatory affairs. Quality systems. Software and data skills. A master's degree.

Where these numbers come from

Job Bank: Biomedical engineers (other professional engineers), wages (updated Nov 2025)

Engineers Canada: Overview of the licensing process

Professional Engineers Ontario: fee schedule (PDF, Nov 2022)

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/biomedical-engineer>



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