Orthotics & Prosthetics

What are Orthotists & Prosthetists?

♦ **Orthotists** fit external supports and braces (orthoses) for people with weakened or deformed body parts.

♦ Their goal is to enable individuals to function to the best of their ability.

♦ Orthotists may also be employed in industry as designers.

♦ **Prosthetists** produce and fit artificial (prosthetic) limbs to help people with limb loss function more fully.

♦ Both fields combine knowledge of medicine, engineering, and materials science to enhance the lives of people every day.

♦ They assess the patient’s history, test muscle strength and range of motion, and evaluate the devices for comfort, stability, and proper fit.

♦ Some work as either a Prosthetist or Orthotist, others are Certified Prosthetists Orthotists (CPO) and can practice in both disciplines.

♦ Orthotists and prosthetists work in a variety of settings: private practice, hospitals, rehabilitation facilities, specialty clinics, and nursing homes.

♦ These are great careers for people who are problem solvers and who want to have extended relationships with their patients.

How do I become an Orthotist and/or Prosthetist?

♦ Beginning in January 2013, the National Commission on Orthotics and Prosthetics Education (NCOPE) stated that a Master’s degree in O&P is the minimum educational standard to become a certified practitioner. Currently there are 13 active master’s degree programs in the U.S. Several more are set to start in 2013 and later.

♦ The residency is the second half of an individual’s education and advancement towards becoming an O&P practitioner. Upon graduation from a CAAHEP-accredited O&P program, students must complete an NCOPE-accredited residency program to gain clinical training and experience in three primary areas: pediatrics, adult, and geriatrics.

♦ To practice as an orthotist and/or prosthetist, individuals must be certified by the American Board for Certification in Orthotics and Prosthetics, Inc. (ABC).

♦ After certification individuals may use the credentials of CO (Orthotists), CP (Prosthetist), or CPO (Certified Prosthetist Orthotist).

What prerequisite courses do I need?

♦ Prerequisite courses vary quite a bit between programs, but typical requirements include at least 1 course each in: biology, chemistry, physics, psychology, algebra or higher math, human anatomy, human physiology. All required courses must have a minimum grade of a C

<table>
<thead>
<tr>
<th>Common Prerequisite Courses</th>
<th>BIOL 11000-11100 or 13100 and 23100/23200</th>
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<tbody>
<tr>
<td>Biology</td>
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<tr>
<td>Anatomy &amp; Physiology</td>
<td>BIOL 20300-20400 or 30100-30200</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>CHM 11500-11600 or equivalent</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 22000-22100 or equivalent</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSY 12000</td>
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<tr>
<td>College Algebra or higher math</td>
<td>MA 15300-15400 or 15800 or 15900</td>
</tr>
<tr>
<td>Additional Required &amp; Recommended Courses</td>
<td>Gross Anatomy with dissection, kinesiology, biomechanics, material science, public speaking, art/drawing/sculpture, business courses</td>
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</table>
What else do I need to do before I apply?

♦ Applicants should gain experience in orthotics and prosthetics by volunteering or working at a hospital, clinical rehabilitation facility, clinical orthotics and prosthetics facility or research facility.

♦ Laboratory experience such as plaster work, laminating, and vacuum forming are all seen favorably as is patient contact.

♦ A minimum of one year of prosthetics or orthotics experience is encouraged.

♦ A Graduate Record Exam (GRE) [www.gre.org] is required for the master’s program.

♦ A TOEFL exam may be required if English is not your first language.

How do I apply?

♦ Application is made directly with the schools you would like to attend.

♦ Early application is recommended as many programs accept only a handful of students.

What is the job outlook?

♦ The demand for orthotic and prosthetic services is expected to increase by 25% for orthotic care and 47% for prosthetic care by 2020.

♦ According to the Bureau of Labor Statistics, huge shortages in providers are expected by 2020 (only 61% of those using orthotics will be served while only 66% of those using prosthetics will be served at current provider levels).

♦ The Department of Health and Human Services also projects a large increase in diabetic limb loss in the coming years which further increases the need for these professionals.

♦ The total number of persons with an amputation is expected to increase by at least 47% by 2020.

♦ Most students are employed before leaving their training programs.

♦ The median wage of ABC certified orthotists and prosthetists was $65,060 in May 2010.

Where can I get more information?

American Academy of Orthotists and Prosthetists
http://www.oandp.org

Orthotics & Prosthetics (from AAOP)
http://www.opcareers.org

National Commission on Orthotic & Prosthetic Education
http://www.ncope.org

Programs in the region:

Northwestern University, Chicago, IL
http://www.nupoc.northwestern.edu

Eastern Michigan University, Ypsilanti, MI
http://www.emich.edu/chhs/hphp/orpr/

Century College, White Bear Lake, MN

For more information about Orthotics & Prosthetics programs or your interests in the health professions, contact the Center for Pre-Professional Advising, at 765-496-2690 or preprofessional@purdue.edu.

Information for this career guide came from the above websites and those of individual schools.

Also see information at the Bureau of Labor Statistics at: