



## INNOVATIVE HEALTH MAJORS at Georgetown University in Washington, DC

Whether you are interested in the policy, science, international, or clinical aspect of health, Georgetown University has a program for you. The School of Nursing & Health Studies (NHS) prepares students for countless career opportunities in the healthcare industry and in true Georgetown tradition produces leaders for the future. The four Bachelors of Science degree programs offered in NHS are:

- Healthcare Management and Policy (HMP)
- Human Science (HS)
- International Health (IH)
- Nursing (BSN)

Students within NHS are able to go abroad, minor in other subject areas, and/or complete the pre-med requirements.

The HMP program is designed for students preparing for careers in the organization and management of health systems. This program provides a unique opportunity for students interested in business and health; students will get a foundation in business (accounting, economics, etc.) while also learning the ins and outs of the American healthcare system, with a focus on quality of care issues.

The HS program is designed for students who desire to study the application of scientific discoveries to human health. Courses include human biology, chemistry, genetics, immunology, biotechnology, and microbiology. Students will be prepared to pursue biomedical research, teaching, pharmaceutical marketing and sales or graduate study including public health, physical therapy, dentistry, and medicine.

The IH program blends public health and health systems management with an emphasis on how environment, culture, economics, and politics are all key factors in improving the health status of whole populations. This program includes a series of three internships: community-based, abroad, and within an international organization.

The BSN program gives students an outstanding education in the biological, physical, and social sciences needed for their nursing career. Georgetown BSN students begin their clinical and practical coursework with patient contact in their first year of study.

For those students interested in research, Georgetown provides undergraduates with unique research opportunities. In January, NHS finished construction of a new, state-of-the-art teaching laboratory and research facility—the Discovery Center. The Discovery Center includes a teaching lab and a faculty research lab with space for six faculty and twelve students to work side by side on various research projects.

And because of our location, Georgetown students have held internships at National Institutes of Health, National Academy of Sciences, Pan American Health Organization, World Bank, Inter-American Development Bank, Congressional and other U.S. Government Offices and Agencies and many of the other 200-plus health science, medical and healthcare agencies and organizations in the Washington, D.C. area.

To learn more about the NHS programs, please visit: <http://nhs.georgetown.edu> or feel free to call us (202) 687-8439.

**Georgetown University in Washington, DC invites you to explore innovative health-related majors.**

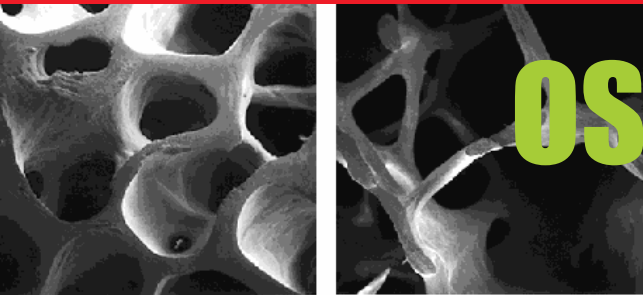
**If you're interested in careers related to...**

**Physical Therapy, Medicine, Public Health, Healthcare Consulting, Nursing, Clinical Research, Dentistry, Healthcare Law, Forensic Science**

**...than you may be interested in one of the following majors:**

- Healthcare Management and Policy
- Human Science
- International Health
- Nursing

**Please visit our website for more information**  
**<http://nhs.georgetown.edu> or call email**  
**[nhsadmissions@georgetown.edu](mailto:nhsadmissions@georgetown.edu).**



# OSTEOGENESIS Imperfecta

By Ashley Moree  
Postsecondary Collegiate Board Representative

## In the United States there are 50,000 people diagnosed with Osteogenesis Imperfecta (OI).

Osteogenesis Imperfecta is a genetic disorder caused by bones that break easily. There are four different recognized levels of severity. Some individuals may have only a few fractures in a lifetime where others may have several hundred. OI affects the body's production of type 1 collagen. The collagen may be lacking or a poorer quality than normal. The four types of OI are:

### Type I

- Most common and mildest type of OI.
- Bones fracture easily. Most fractures occur before puberty.
- Normal or near-normal stature.
- Loose joints and muscle weakness.
- Sclera (whites of the eyes) usually have a blue, purple, or gray tint.
- Triangular face.
- Tendency toward spinal curvature.
- Bone deformity absent or minimal.
- Brittle teeth possible.
- Hearing loss possible, often beginning in early 20s or 30s.
- Collagen structure is normal, but the amount is less than normal.

### Type II

- Most severe form.
- Frequently lethal at or shortly after birth, often due to respiratory problems.
- Numerous fractures and severe bone deformity.
- Small stature with underdeveloped lungs.
- Collagen improperly formed.

### Type III

- Bones fracture easily. Fractures often present at birth, and x-rays may reveal healed fractures that occurred before birth.
- Short stature.
- Sclera have a blue, purple, or gray tint.
- Loose joints and poor muscle development in arms and legs.
- Barrel-shaped rib cage.
- Triangular face.
- Spinal curvature.
- Respiratory problems possible.
- Bone deformity, often severe.
- Brittle teeth possible.
- Hearing loss possible.
- Collagen improperly formed.

### Type IV

- Between Type I and Type III in severity.
- Bones fracture easily. Most fractures occur before puberty.
- Shorter than average stature.
- Sclera are white or near-white (i.e. normal in color).
- Mild to moderate bone deformity.
- Tendency toward spinal curvature.
- Barrel-shaped rib cage.
- Triangular face.
- Brittle teeth possible.
- Hearing loss possible.
- Collagen improperly formed.

There is no cure for OI at this point in time. The treatment for those affected is to prevent or control the symptoms, maximize independent mobility, and to develop optimal bone mass and muscle strength. Those with OI are commonly treated for fractures, undergo dental procedures, and are recommended for physical therapy.

In maximizing independent mobility, wheel chairs, braces and other assistive devices are utilized. Some individuals must undergo a surgical procedure called "rodding" where metal rods are inserted to run the length of long bones. OI patients are encouraged to exercise to promote muscle and bone strength as well as utilizing aquatic therapy. Swimming allows those with OI to move about freely with little risk for fracture. Most importantly, those with OI should maintain a healthy diet and avoid caffeine, smoking, and alcohol all of which deplete bone and cause an increase in bone fragility. Individuals diagnosed with OI tend to lead successful lives. The prognosis varies depending on the severity. For more information on Osteogenesis Imperfecta, please visit the OI Foundation website at [www.oif.org](http://www.oif.org).

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