

Genetic Counseling

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Genetic Counselor was named one of the “25 Amazing Healthcare Support Jobs” and one of the “100 Best Jobs” in 2017.

- *U.S. News and World Report*



What is Genetic Counseling?

“ ..the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease.”

NSGC Definition Task Force, *J Genet Coun* 15(2): 2006



Genetic Counselors answer these questions:

- What caused this disease?
- How did this happen?
- Why did this happen?
- Could it happen again?
- What health problems can I expect my child to have?
- What can be done about it?

Who should seek Genetic Counseling?

Concerns about:

- Family or personal history of genetic disease or birth defect
- Pregnant after age 35
- Genetic diseases common in ethnic group
- Environmental exposure through job or lifestyle
- Considering genetic testing



How is genetic counseling done?

1. *Interpret* family and medical histories to assess the chance of disease occurrence or recurrence
2. *Educate* patients about inheritance, testing, management, prevention, resources and research
3. *Counsel* patients to promote informed choices and adaptation to risk or condition

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Pedigree Analysis & Risk Assessment

FAMILY PEDIGREE Record #: 0-00-00-02 Medical Center Location: Best Hospital, Pediatrics
 Consultand: Ms. Johnson Historian: Ann Johnson Recorder: Dr. Spock Date: 4/1/98
 Proband: Bob Johnson
 Diagnosis: MR, glaucoma, cataracts
 Ancestry: African American Consanguinity? denied

KEY: - cataracts - mental retardation/learning disabilities
 - glaucoma

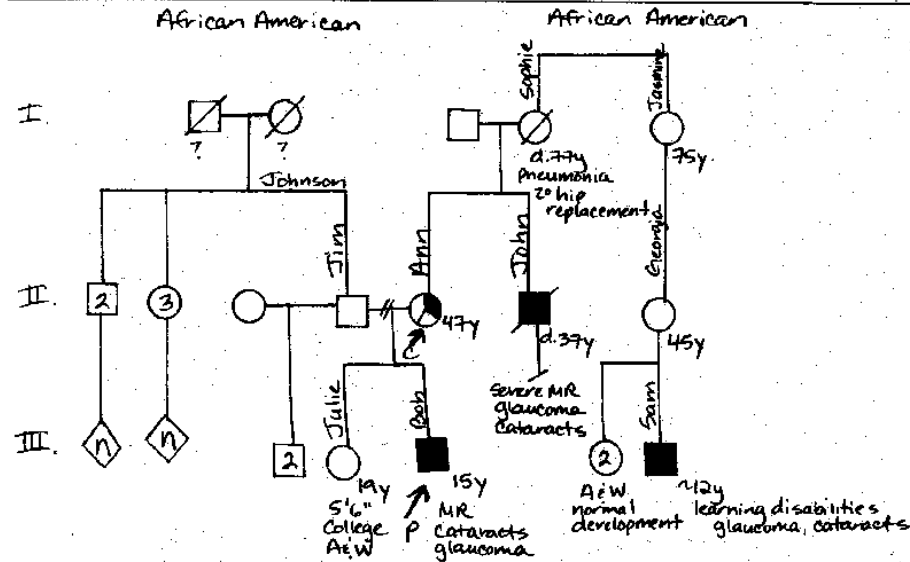


Figure A.2 Hypothetical pedigree of the Johnson family—a family with X-linked oculocerebrorenal (Lowe) syndrome.

- Analyze inheritance patterns and risks of recurrence
- Identify family members at risk

Specialty Areas



The largest specialty areas for genetic counselors are cancer, prenatal and pediatric genetics, but genetic counselors work in a variety of specialties.



A Range of Career Possibilities

- Working with patients
- Laboratories
- Research
- Academia
- Professional and patient organizations
- Healthcare administration
- Public health
- Policy

“As a genetic counselor, I've had the opportunity to work in many different areas of medicine. And the impact I've had over the course of those years.... has been as an advocate for patients.”

-Janet Williams, CGC



By the Numbers...

Employment of genetic counselors is projected to grow 29% from 2014-2024. Average growth is 7%.

-Bureau of Labor Statistics

More than 70% of graduating GCs in 2014 and 2015 had accepted a position **before** graduation.

- *NSGC 2016 Professional Status Survey*

The average salary for a full-time genetic counselor in 2015 was \$81,377 and ranges up to \$250,000 depending on specialty area and experience.

– *NSGC 2016 Professional Status Survey*

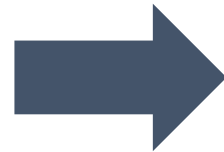
90% of genetic counselors report they are satisfied with their job

– *NSGC 2016 Professional Status Survey*

The Education Path

A bachelor's degree,
typically in:

- biology
- social science
- or a related field



A master's degree in
genetic counseling
from an accredited
program:

- coursework
- clinical training
- research



ABGC and/or CAGC
Certification (USA &
Canada) after passing
the Board Examination.
Many states also
require licensure to
practice



Genetic Counseling Program Coursework

- Human genetics
- Embryology
- Ethics
- Counseling techniques
- Genetic tests

General GC Program Requirements

- 4-year baccalaureate degree
- Undergraduate coursework in *biology, chemistry, organic chemistry, biochemistry, genetics, statistics* and *psychology*
- Graduate Record Exam (GRE)
- Advocacy experience volunteering as a counselor (e.g., crisis counseling, bereavement counseling) or working with individuals who have a genetic conditions or disability.
- Job shadow or speak to a genetic counselor to show you have explored the field and are familiar with the profession. (See nsgc.org)
- Research and/or laboratory experience can also strengthen your application

Resources

- National Society of Genetic Counselors (www.nsgc.org)
- Association of Genetic Counseling Program Directors (agcpd.org/AdmissionsInfo)
- Accreditation Council for Genetic Counseling (gceducation.org/Pages/Accredited-Programs.aspx)
- GRE test (www.ets.org/gre/)