GENETIC COUNSELOR

Degree required

Master of Science (MS) in human genetics or genetic counseling

Average starting salary \$71,000

Subspecialties

Prenatal health, pediatrics, hereditary cancer risk assessment, adult-onset neurological and cardiovascular diseases



THE JOB

Key job characteristics

Working in **multidisciplinary teams** with heath care providers, clinical researchers, or industry specialists, breaking down and explaining complex concepts, presenting information to large groups at conferences or patient advocacy meetings.

A multidisciplinary team is made up of people in different professions who have varying but complimentary skills, qualifications, and experience, and who are working together towards a common goal.

Most rewarding part of the job

Hearing the stories of the amazing families we serve and participating in their personalized care.

Most challenging part of the job

The emotional burnout that some practitioners experience over time.

MISCONCEPTIONS

About genetic counselors

That genetic counselors are in the business of designer babies. Genetic counselors (GCs) perform data analyses and interpretation, assist in the development and execution of cutting-edge clinical trials for cancer patients or patients with rare and undiagnosed diseases and other research projects, and contribute to the ethical marketing strategy of new genetic tests to medical providers.

THE SKILLS

Important soft skills

Strong communication, collaborative spirit/teamwork, adaptability, problem-solving, empathy, emotional intelligence, and a developed ethical framework.

Important lab or hard skills

Not many laboratory skills are required, but a GC needs to have a thorough understanding of genetics and a strong background in clinical embryology (definition: the study of embryos and their development) and human development.

SOME TIPS

Advice for high school students

Take every opportunity to work in groups/teams on larger projects. Try out various roles during different group projects, seize opportunities to present your work to individuals who are not as knowledgeable on the topic, and actively listen to their questions before responding with answers. This experience will come in handy when pursuing any career in science, given the heavy focus on collaboration and communication of ideas.

Helpful courses to take in high school or college

Biology, genetics, molecular biology, biochemistry, statistics, and psychology.

A DAY IN THE LIFE: GENETIC COUNSELOR IN A PEDIATRIC SETTING

A typical day for a GC is quite variable depending on what setting you are working in. Genetic counselors in a lab setting don't work with patients—they analyze genetic data, present their findings, and optimize lab operations. Genetic counselors in a pediatric setting work with patients, and these are some tasks on a typical day.

Review patient charts and work with the medical geneticist (MG) to plan approach for seeing patients

Meet with the patient and family to interview for medical histories, then discuss possible diagnoses with MG, plan next steps, and present genetic testing options to families

Disclose results to families and review findings of genetic testing—for patients with genetic findings that support a diagnosis, provide an explanation of syndrome features/prognosis and discuss next steps and resources for educational or emotional support

Meet with a clinical study coordinator to review changes to a research protocol

Investigate new options for genetic testing and follow up on the status of genetic testing results for patients and families you've seen previously

Create PowerPoint presentation on complex patient cases for a conference

Document clinical consults into the electronic medical record (EMR), ensure all necessary paperwork has been submitted to laboratories to accompany patient samples for genetic testing, write letters explaining the necessity of genetic testing to a patient's insurance company in support of financial coverage for this testing

Reflection questions

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- What is something new you learned about this career?
- How does this job work with the other careers in genomics you have learned about?
- How can you use this career insight to help you explore your own passion?
- If you could talk to someone with this job, what would you ask them?
- Is there anyone in your personal network you could connect with to learn more?

Learn more about exciting careers in genomics by visiting illumina.com/stem.

