Learning Objectives

MedBridge

Case-Based Introduction to Pediatric Genetic Analysis for SLPs
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Course Objectives:
Upon completion of this course, learners will be able to:

- Name three reasons why knowledge of genetics is important for speech-language pathologists in their clinical practice
- Distinguish between chromosomal and genetic variations
- Distinguish between syndromic and nonsyndromic forms of speech and language disorders
- Distinguish between sporadic and inherited genetic changes
- Conduct a family history interview designed to identify genetic red flags
- Describe the professional scope of practice of genetics professionals
- Describe the professional boundaries between the SLP and the genetics professional
- Describe how a speech language pathologist can make a referral to a genetics professional
- List three ways in which the SLP’s clinical approach can be informed by knowledge of genetic etiologies
- List three resources that provide additional information about clinical genetics

Chapter 1: Genetics and the SLP: Why Should SLPs Care About Genetics?
Very few speech-language pathologists (SLPs) have formal training in molecular or clinical genetics, yet geneticists are discovering more genetic etiologies of communication disorders. This chapter describes why knowledge of genetics is relevant to SLPs in their clinical practice.

Chapter 2: Boy With Sporadic Childhood Apraxia of Speech, Dysarthria, and Language Delays: Chromosomes and Genes
This chapter covers the concepts of chromosomes and genes, the process of translating the DNA sequence in a given gene into a protein molecule, and the different ways that missing genes can affect a developing organism.

Chapter 3: One Family With Single Basepair Mutations and Severe Speech Sound Disorder
In one multigenerational family, severe speech sound disorder is inherited. Here, the genetic change turns out to be a point mutation affecting a single DNA nucleotide, changing a gene’s function. This chapter covers the basic structure and functions of genes and the downstream effects of a genetic change on the brain and observable speech behaviors.
Chapter 4: Translating Your Genetics Knowledge Into Clinical Practice
Imagine you are an SLP conducting an assessment of a child referred to you because of concerns regarding delayed language development. What are some signs of a genetic cause? How can you use your knowledge of genetics to manage the case more effectively?

Chapter 5: Q&A: Conducting a Family History
This chapter features a Q&A session that demonstrates how to conduct a family interview to look for genetic red flags for certain communication disorders.