NAVIGATING ENDOCRINE-DISRUPTING CHEMICALS: WHAT YOU AND YOUR PATIENTS NEED TO KNOW

We know that clinicians and their patients have questions about endocrine-disrupting chemicals (EDCs). Compelling scientific evidence in recent decades has established strong links between chemical exposures and endocrine diseases, and patients may want to know about the evidence relating EDCs to specific diseases, or how they can control their exposures and reduce risks for themselves and their families.

In 2019, the Society's EDC Advisory Group gathered a Task Force to develop resources that would help endocrinologists answer questions about EDCs and facilitate evidence-based discussions with their patients. The Task Force led the creation of the a series of short videos, which build on the science presented in the Endocrine Society's scientific statements on EDCs. We hope that you find these videos useful and encourage you to check back as more videos will be released in the coming months. If you have any questions or subjects that you would like to see in future installments in this series, please contact Joe Laakso, PhD, Director of Science Policy at jlaakso@endocrine.org.

AN INTRODUCTION TO ENDOCRINE-DISRUPTING CHEMICALS

A VIDEO DISCUSSION WITH LAURA VANDENBERG, PHD

Why are endocrine-disrupting chemicals different from other toxic exposures? In this video, at endocrine.org/topics/edc/talking-edcs, you will learn about how chemicals interfere with hormone biology and endocrine systems, and how principles of endocrinology can be applied to toxic chemical exposures.

There are unique features of endocrinology that need to be considered when evaluating how chemical exposures can cause endocrine disease. In the first video in this series, Laura Vandenberg, PhD, covers a number of issues including the following questions:

Q: What are endocrine-disrupting chemicals (EDCs)?

A: EDCs are chemicals or chemical mixtures that interfere in some way with hormone action.

Q: How am I exposed to EDCs?

A: There are many suspected sources of EDC exposures, including consumer products (e.g., cosmetics, food packaging materials) as well as industrial chemicals (e.g., PFAS) and pesticides.

Q: If EDCs are harmful, how come I haven't noticed effects?

A: The effects of EDC exposures may take months or years to manifest and include complicated conditions with multiple contributing causes such as cancer, diabetes, and reproductive health issues.

Q: How do EDCs act and why are they different from other chemical exposures?

A: Hormones act at extremely low doses and EDCs may have effects at similar dose ranges. Hormones also control the development of organ systems, therefore exposure to EDCs during development may cause irreversible effects. The relationship between hormone levels and effect is also rarely linear, so low doses as well as high doses of EDCs may cause harm.

ENDOCRINE SOCIETY