

Teratology Primer, 3rd Edition

Contents

Authors

Preface

BARBARA F HALES, ANTHONY R SCIALLI, MELISSA S TASSINARI

What is Teratology? (Foreword from first edition of Teratology Primer)
F. CLARKE FRASER

What Does It Mean to Be a Teratologist Today?
NISHA SIPES

What Birth Defects Are Common in Humans? How Are they Diagnosed at Birth?
SURA ALWAN, JAN FRIEDMAN

What Is the Timeline of Important Events During Pregnancy That May Be
Disrupted by a Teratogenic Exposure?
STEVEN B. BLEYL, GARY C. SCHOENWOLF

What Are the Possible Consequences of Pre-Conception Female Germ Cell
Exposures on Pregnancy Outcomes?
SANIYA RATTAN, CATHERYNE CHIANG, EMILY BREHM, JODI A. FLAWS

What Are the Possible Consequences of Pre-Conception Male Germ Cell
Exposures on Progeny Outcome?
BERNARD ROBAIRE, BARBARA F. HALES

What Is the Role of the Placenta—Does It Protect Against or Is It a Target for
Insult?
RICHARD MILLER

How Do Genes Affect the Risk of Having a Child with a Birth Defect?
JOHN M. GRAHAM, JR.

How do Gene-Environment Interactions Affect the Risk of Birth Defects?
GARY SHAW, RICHARD FINNELL

How Has Epigenetics Influenced Understanding of Teratogenesis?
ROBERT M GREENE, MICHELLE PISANO

Do Teratogenic Exposures Act through Common Pathways or Mechanisms of Action?
GEORGE DASTON

Can Prenatal Exposures Affect Brain Developmental and Behavior?
CHARLES VORHEES, MICHAEL T WILLIAMS

What Tests Are Available to Screen Prenatally for Birth Defects?
SARAH OBIČAN, KARLA LEAVITT, ANTHONY R. SCIALLI

What Sources of Information Are Available on Developmental Risks and Pregnancy Safety?
ANTHONY R. SCIALLI, JANINE E. POLIFKA

How Are Pharmaceuticals Labeled for Pregnancy and Lactation?
LEYLA SAHIN, MARIE TEIL

What Are the Ethical Considerations for the Inclusion of Pregnant Women and Breastfeeding in Clinical Trials?
LEYLA SAHIN

Teratology Communication: How Can I Provide Information in a Way That Supports Effective Decision Making?
BETH CONOVER

How Do Epidemiologic Studies Contribute to the Identification of Teratogenic Exposures?
GARY SHAW, SONJA RASMUSSEN

What is the Role of Post Marketing Surveillance in Detecting Teratogenic Exposure?

CHRISTINA CHAMBERS

How are New Medicines Evaluated for Developmental Toxicity?
SUSAN LAFFAN, MELISSA TASSINARI

Can Alternative Methods Contribute to the Identification of Teratogenic Exposures?
JULIETA PANZICA-KELLY, KAREN AUGUSTINE-RAUCH

How Might Systems Biology Contribute to the Prediction of Teratogenic Risk?
ELAINE FAUSTMAN, JOSH ROBINSON, MAXWELL C K LEUNG

Can Teratogenic Risk be predicted from Chemical Structure?
GRACE PATLEWICZ

Can Computational Models Be Used to Assess the Developmental Toxicity of Environmental Exposures?
THOMAS KNUDSEN

How Can Predictive Modeling Be Used to Assess Developmental Toxicity?
NISHA SIPES

Is There a Safe Dose of a Medication Associated with Birth Defects?
AMY L INSELMAN, WILLIAM SLIKKER

What Are the Effects of Alcohol Use During Pregnancy?
MIGUEL DEL CAMPOS, KEN JONES

How Do I Weigh the Risks and Benefits of Taking an Antidepressant Medication During Pregnancy?
BETH CONOVER, ALICIA FORINASH

Can Some Physical Agents Influence Development and Reproduction?
ARMAND LIONE

Do Assisted Reproductive Techniques Increase the Risk of Birth Defects?

SARAH OBIČAN, KARLA LEAVITT, ANTHONY R. SCIALLI

Does Obesity Increase the Risk of Having a Child with a Birth Defect?
SARAH C. TINKER, JANET D. CRAGAN

Is Stress a Developmental Toxicant?
SHARI LUSSKIN

How Do We Know if a Worksite is Safe for a Pregnant Worker?
RACHEL HUNICKE, EMMA ROBERTS, LINDA ROBERTS

Can Chemicals in the Environment That Affect Hormone Function Disrupt
Development?
BARBARA F. HALES, BOB KAVLOCK

Is Herb Use during Pregnancy a Cause for Concern?
ADRIANE FUGH-BERMAN

What Pregnancy Exposures Cause Harm Through Preterm Birth?
KARLA LEAVITT, SARAH OBIČAN

Which Infections Increase the Risk of Birth Defects?
SONJA RASMUSSEN, AMELIA K. WATSON, MARGARET A HONEIN

How Does Nutrition Influence Development?
JANET URIU-ADAMS, GEORGE DASTON

What Is the Impact of Dietary Folic Acid Fortification on the Risk of Birth Defects?
JAMES L. MILLS, ANDREAS GIANNAKOU

Can *In Utero* Exposures Increase the Risk of Disease Later In Life?
JOHN M. ROGERS

Glossary