

chemotherapy or high dose intravenous methotrexate or cytarabine. Additionally, survivors who do not receive CNS-directed therapies are also at elevated risk for cognitive impairment following cancer therapy that disrupts systemic organ function vital to brain health, e.g., cardiac, pulmonary or endocrine function. Risk for cognitive impairment is further exacerbated by adverse events during cancer therapy (e.g., severe infection, recurrent general anesthesia) and health behaviors following cancer therapy (e.g., physical activity, sleep). The type and severity of cognitive impairment in long-term survivors of pediatric cancer may evolve and grow over time, with emerging evidence suggesting some survivors are at risk for accelerated cognitive aging and early onset dementia. Over the course of the survivor's lifespan, the prevalence and impact of cognitive deficits will be determined by a complex interaction between premorbid development and environment, cancer therapy and clinical care, and post-treatment recovery and physical health. The timing and type of these events will dictate the approach to screening and monitoring for cognitive impairment, and will determine the best course for therapeutic intervention to facilitate future cognitive and emotional health.

Upon conclusion of this course, learners will be able to:

1. Describe direct and indirect sources of cognitive impairment in long-term survivors of pediatric cancer
2. Discuss how cognitive impairment may change over the lifespan of survival following treatment for pediatric cancer
3. Identify modifiable targets for interventions to facilitate cognitive health in long-term survivors of pediatric cancer

CE Workshop 05: Technology and Cognition: Examining new trends and opportunities for neuropsychology

Presenter: Maria T. Schultheis

1:00 - 4:00pm
Wednesday, 1st February, 2023
Town & Country Ballroom C

Abstract & Learning Objectives:

Advances in technologies continue to offer new opportunities for understanding brain functioning and brain-behavior interactions. The clinical application of these technologies continues to require the understanding of both the benefits and limitations of integrating these novel methodologies. This workshop will provide an overview of several emerging and established technologies in neuropsychological assessment and rehabilitation. This will include discussion of portable brain imaging technologies, neuromodulation technologies, virtual reality simulation and various brain-computer interface devices. In addition, we will discuss how clinical application of these novel devices offer opportunities for growing knowledge in new areas of analysis (i.e., machine learning analysis) and interdisciplinary collaborations. Upon conclusion of this course, learners will be able to:

1. Identify 3 technologies that are currently employed in neuropsychological research
2. Assess the strengths and weakness of novel technologies for brain-behavior interface
3. Examine current clinical applications of neuromodulation technologies and portable brain-imaging technologies

CE Workshop 06: The Cumulative Burden of Congenital Heart Disease Across the Lifespan: Implications for Neuropsychologists in Pediatrics Through Geriatrics

Presenters: Adam R. Cassidy, Jacqueline H. Sanz, Kelly R. Wolfe

1:00 - 4:00pm
Wednesday, 1st February, 2023
Town & Country Ballroom D

Abstract & Learning Objectives:

The heart and the brain are inextricably linked across development by overlapping genetic programs and transacting physiologies that exist long before birth and endure throughout the lifespan. Congenital heart disease (CHD) refers to a diverse array of conditions in which structural heart development is atypical. Of the roughly 1 million babies born with CHD each