Course Description
This session uses platform presentations, expert dialogue, and a case study discussion to examine current literature regarding maternal and fetal physiology as well as the indications, contraindications, and precautions for all types of exercise in this female athlete population. Exercise prescription, programming, and considerations for running vs sports performance activities are discussed, with a focus on the similarities and/or differences between activity demands.

Objectives
At the conclusion of this session, the participant will be able to:
1. Describe the American College of Obstetrics and Gynecology and American College of Sports Medicine absolute and relative contraindications to exercise and their clinical presentation in a physical therapist setting.

2. Integrate knowledge of maternal and fetal physiology into the physical therapist intervention and exercise prescription.

3. Compare and contrast sport-specific needs of pregnant and postpartum running athletes vs pregnant and postpartum sports performance athletes.

4. Apply current research to sports physical therapist practice.

Introduction of the session format and platform presenters

Platforms:
1. Short-term effects of 4-week real-time gait retraining on trunk kinematics and patellofemoral joint stress in runners (Speaker: Alyssa Dilauro)
2. Females Experience Greater Speed-Dependent Increases in Loading Rate than Males During Treadmill Running (Speaker: Marwan Aljohani)
3. Biopsychosocial Factors of Female Runners with and without a History of Stress Fractures (Speaker: Therese Johnston)
4. Does the 11+ Change Collegiate Women’s Soccer Players’ Cutting Biomechanics (Speaker: Celeste Dix)

Moderator led Q&A for platform presenters

Running in Females who are Pregnant or Postpartum
- External physiological and musculoskeletal changes in pregnancy
- Benefits, barriers, and guidelines for safe and healthy exercise in pregnancy and postpartum
- Risks of exercise while pregnant
  - ACOG Absolute contraindications to aerobic exercise during pregnancy
  - ACOG Relative contraindications to aerobic exercise during pregnancy
  - Additional SCOG relative contraindications
  - ACOG warning signs to terminate exercise
- Running habits of competitive runners
- Defining postpartum
- Breastfeeding and exercise postpartum
- Return to running for the female who is postpartum

Sports Performance Training in Females who are Pregnant or Postpartum
- Strength and conditioning principles and adaptations during pregnancy
- Benefits of resistance training during pregnancy and postpartum
- Risks of resistance training while pregnant
  - ACOG guidelines
  - Center of mass considerations
- Olympic lifting, powerlifting, and CrossFit in pregnancy
- Postpartum phases: vaginal, C-section, and assisted deliveries
- Breastfeeding and exercise considerations: how does resistance training needs differ from endurance needs?
- Return to competitive weightlifting, powerlifting, and/or Crossfit in the postpartum

Moderator led Case Study #1

Moderator led Q&A and summary of session
References


Chumanov E. A survey of running habits and injury in a postpartum population. APTA Combined Sections
Chumanov E. Inter-recti distance is improved with an 8-week deep abdominal training program. APTA Combined Sections Meeting, February 2015; Indianapolis, IN.


