

## PRESIDENT'S MESSAGE

Bruno U.K. Steiner, PT, DPT, LMT, RMSK

Life moves along quickly as has the year 2022. For some odd reason, in the past year, I have adopted the phrase, “don’t blink” or you’ll miss it. To that point, my initial year as I-SIG President has been intensely engaging and gratifying. Since this is the time of reflection and reaching out to one another, I have much to be thankful for. I will try spare you from a boilerplate ‘attitude of gratitude’ platitude, but I would like to remind our membership that we are blessed to be in a profession with such an impact on public health on both a far-reaching macro and individual level, and I can’t help to feel we are at the very infancy of our potential. Here goes.

I am thankful for the participation of incredibly talented, thoughtful, passionate and intelligent Physical Therapy practitioners, academics, advocates and standard bearers who zealously, selflessly promote the potential of our beloved profession. I am thankful for all the physical therapists who teach and practice with compassion to represent and leverage our potential. I am thankful for those among our rank and file who, despite adversity, fatigue and resistance, unfailingly stick to the mission of improved health policy to offer our patients the best, compassionate, expedient care available. I am thankful for the brilliant, scientifically rigorous physical therapists who move toward adopting evaluative and treatment technology and methodology to keep our profession relevant and current with our patient population’s realities and needs. I am grateful to physical therapists who challenge the status quo and who educate the public, state board members, and stakeholders that our profession has evolved to a doctoral level education, and that laws and rulings must reflect this current reality. This is the mission of the Imaging SIG and I am humbled by the brilliant members of the physical therapy profession.

### Our Fall 2022 I-SIG Membership Meeting: Engaging Change for PT-Imaging Referral on Multiple Fronts

Speaking of which, the Imaging SIG has concluded an intensive membership meeting with a phenomenal panel of speakers and participants titled, *Engaging Change for PT-Imaging Referral on Multiple Fronts* on November 17, 2022. If you missed it, not to worry, it is recorded, and it is a MUST listen or view. I am so impressed by the breadth and depth of knowledge of our panelists, and I am certain you will get a much deeper appreciation of the mission ahead. I never cease to learn from these experts. Remember, knowledge is a crucial component to strategic preparation.

Our first panelist and newly minted RMSK, James Dauber, PT, DPT, RMSK, CertMDT, CMTPT, presented *Mind your Language – Calibrating your Questions to Generate a Favorable Response: The West Virginia Experience*. In this presentation, James reflects on West Virginia’s successful approach to elicit a ruling that reflects the capabilities of the primary care physical therapist. In a ground-breaking 2021 ruling, the West Virginia Board of Physical Therapy wisely issued a written opinion, advisory in

nature, that physical therapists may refer a patient to a radiologist (eg, order imaging), with clinical justification, for any diagnostic imaging study within the recognized standards of the practice and education for a physical therapist. Language and the narrative we craft is everything as James discusses this critical example of success in West Virginia.

Lance Mabry, PT, DPT, OCS, FAAOMPT reported on his seminal work, *Physical Therapists Are Routinely Performing the Requisite Skills to Directly Refer for Musculoskeletal Imaging: An Observational Study*, which was just published by the *Journal of Manual and Manipulative Therapy*. I believe this publication is a critical piece of evidence supporting physical therapy imaging referral. No shock to us all that physical therapists are great at initiating appropriate imaging referrals, but Dr. Mabry shows us how overwhelming the evidence supports our profession. We discussed whether primary care physicians or non-physicians such as nurse practitioners, physician assistants, and clinical psychologists are ever evaluated to such scrutiny. If anyone has insights, please let us know! I think this speaks to an important point. We may benefit from comparisons to other professions who are granted imaging privileges to expose inconsistencies in health policy. We need to compare our educational hours in MSK-related evaluation, diagnosis, radiology, etc, to other disciplines that manage to safeguard their imaging privileges.

Evan Nelson, PT, DPT, PhD followed up with his recently published research in his talk *After Legislative Authorization: Implementing Imaging Referral Processes in PT Practice*. Dr. Nelson continues to pile on with more compelling evidence that physical therapists order imaging responsibly and appropriately. Exciting indeed!

As for our final speaker of the evening, we were delighted to welcome APTA Arizona Chapter President, Brian Schmitz PT, DPT with *Fight!...for your Right!...to Practice at the Top of your License!*. Dr. Schmitz led Arizona’s Imaging Referral Legislative Initiative. He recounted his travails and tribulations in wrestling with the Arizona legislature to codify radiography referrals. There was much to unpack from this session, and I can’t stress how much one can glean from this. Dr. Schmitz is a sharp, thoughtful, and passionate advocate who faced an unfavorable board ruling and an adversarial stakeholder who stopped us from having full access to all imaging modalities. Dr. Schmitz is undeterred and is continuing his quest for full access. I have the luxury to question the Arizona board ruling’s response, and I must say (my impressions) I think the board missed a great opportunity, and as umpires have done repeatedly before them, they blew the call.

Regarding the recalcitrant stakeholder, who happened to be an ER physician, we can imagine how that went. Due to antiquated, calcified, and uninformed preconceptions, our doctoral level of expertise and education was NOT recognized nor fully appreciated. I can empathize with Dr. Schmitz only too well. In interviews with physicians I have worked alongside, and from whom I now enjoy the respect as a valued peer, they admitted that they had no idea that our education and experience were that

rich. They thought our job was relegated to getting people out of bed after surgery. The onus is on us to craft a strategy to meet this entrenched attitude. We have to devise stratagems to defuse these attitudes and false belief systems. Language is everything, and we must develop a script to address this scenario. Maybe even a workshop is warranted, as we will face this recalcitrance repeatedly. We will explore this in subsequent webinars/webcasts. Channeling my inner broken record player - we want it all: MRI, CT-scan, DEXA, MSKUS, and radiography.

Adding to the thoughtful discussion, we heard from our Vice President, Brian Young, PT, DSc, OCS, FAAOMT and our Research Chair, George Benneck, PT, PhD, OCS. I added some legislative news and thoughts about the importance of PT-administered MSKUS! Do I need to tell everyone once again that MSKUS is the future of our profession and will erode more barriers to imaging referral.... and more??

### About that MSKUS exam...!!

I am proud to announce that another wave of 11 brave physical therapists has hazarded to sit the RMSK exam in the fall of 2022! I am waiting with bated breath. It takes 60 days for the results to come in. I have spoken with a few of our candidates, and they report the expected response. It's tough! It is designed to be challenging as it is the physician's exam. Physicians fail this exam in impressive numbers as well. So, you cannot be cocky about your prep, but being dedicated scientists and practitioners, we pass this exam. Let me reiterate, if you want to show that we rival the diagnostic acumen of other diagnostic professions, this is a compelling way to do it. My dear physical therapist colleagues, we need to take advantage of this opportunity, and we need MORE body count to (1) study this excellent imaging modality, (2) use it, (3) study for the RMSK exam... and (4) pass it! Let's make MSKUS our own!

### Legislative Gains in PT Imaging Referral

North Dakota's practice act, revised in 2021, permits physical therapists to order x-rays.

Arizona Senate Bill 1312 was passed in 2022. This legislation permits physical therapists to order x-rays. The physical therapist ordering the x-rays must report the results to the patient's health care practitioner of record.

West Virginia Board of Physical Therapy Advisory Opinion: In 2021, the West Virginia Board of Physical Therapy issued a written opinion, advisory in nature, that physical therapists may refer a patient to a radiologist (eg, order imaging), with clinical justification, for any diagnostic imaging study within the recognized standards of the practice and education for a physical therapist.

### In Pursuit? – More States Contemplating PT-directed Imaging Referral

Before listing states that may be deliberating physical therapist imaging referral strategy, I implore anyone who may be along the path to coordinate with the I-SIG. I hope members from all states who wish to go down that path consult with us to help with their negotiation prep and strategic planning! Call us and let us know. You don't have to reinvent the wheel on this. Let us help you...we would love to collaborate with you and, at the very least, provide you with some resources and insights to improve our collective chances as we chip away at the obstacles ahead. We will learn together and pass on the knowledge for the benefit of all patients. Good fortunes to all who go down that path:

Connecticut – Decision not made as to whether to pursue next year. They are deliberating board opinion, regulation, or legislation

Georgia – Pursuing legislation to pursue full imaging and MSKUS

Iowa – Pursuing legislation

Kentucky – may be sought in the following year

North Carolina – contemplating board opinion, regulation, or legislation

### Recommended Webcasts and Podcasts

There are 3 essential interviews I want to feature:

First, Joe Tatta, PT, DPT takes a deep dive with Dr. Lance Mabry in *The Latest Evidence on Physical Therapists Ordering Diagnostic Imaging with Lance Mabry*

<https://www.youtube.com/watch?v=5Z35E4iYlgQ>

Second, please check our Stephen Shaffer, PT, ScD, FCAMPT, FAAOMPT in his podcast interview with Dr. Lance Mabry

<https://aaomptpodcast.simplecast.com/episodes/ep-100-mabry-interview>

Third, I would like to highlight Dr. Shaffer's interview with former I-SIG President, Charles Hazle PT, PhD

<https://aaomptpodcast.simplecast.com/episodes/rebroadcast-ep-28-hazle-interview>

### FROM THE DESK OF OUR RESEARCH CHAIR – George Benneck, PT, PhD, OCS

The Imaging SIG Research Committee workgroup consisting of Alycia Markowski, Maureen Watkins, Murray Maitland, Robert Manske, Katherine Podoll, and Lorna Hayward recently published a paper in *Physiotherapy Theory and Practice* titled, *Exploring the integration of diagnostic musculoskeletal ultrasound imaging into clinical practice by physical therapists*. This longitudinal study examined significant cases during the weekly use of musculoskeletal ultrasound imaging by RMSK-certified physical therapists and illuminated the clinical reasoning behind the use of this technology in mainstream physical therapy practice.

### FROM THE DESK OF OUR VICE PRESIDENT – Brian Young, PT, DSc, OCS, FAAOMT

To support the requirements of CAPTE and ABPTRFE programs to teach components of diagnostic imaging and provide opportunities for all clinicians to enhance clinical skills, the Imaging SIG is excited to announce several educational opportunities being provided by members at CSM 2023! Please share these with all your Orthopaedic Academy and non-Orthopaedic Academy colleagues, as imaging skills are essential for every Physical Therapist!

Be sure to check out the **three 1-day preconference courses** that address Diagnostic Imaging:

- Tuesday, February 21: *“Point-of-Care Musculoskeletal Ultrasound: An Introduction and Hands-on Course.”* This is an excellent opportunity to learn about all a Physical Therapist can do with ultrasound and the RMSK certification.
- Wednesday, February 22: *“Getting a Clear View of Imaging Content in Physical Therapist Educational Curricula”* with Charles Hazle, Michael Ross, Lynn McKinnis, Aimee Klein, and Dale Gerke. This preconference course, sponsored by the

I-SIG, is an excellent resource for clinical and academic faculty across the spectrum of physical therapist education.

- Wednesday, February 22: *“Kick-starting your Diagnostic Imaging Skill Set for Lower Extremity Injuries in Direct Access Physical Therapy”* with John Mason, Michael Crowell, Michael Johnson, and John McGinniss. This course will assist practitioners in developing decision-making skills for ordering, interpreting, and integrating diagnostic imaging into physical therapist practice.

Additionally, be sure to invite all your CSM colleagues and new acquaintances to our Saturday, February 25, 11 a.m. - 1 p.m. session, *Imaging Masterclass: A Case-Based Learning Experience with Physical Therapist Imaging Experts* with Drs Scott Tauferner, Stephen Kareha, Cindy Bailey, Peter Aguero, and Brian Young. Employing imaging-related skills can seem intimidating. This session will provide interactivity with imaging experts as they walk through clinical decision-making case examples, showing the integration of clinical examination, communication, ordering, interpretation, and integration into client care decisions.

*I look forward to seeing each of you at CSM!*  
Brian

**A Quick Hitter and IT IS FREE to AOPT members**

**DIAGNOSTIC REFERRAL FOR IMAGING: Clinical Decision Resources**

Available at [www.orthopt.org](http://www.orthopt.org)

ISC 32.2, The Female Athlete Throughout the Lifespan

# Changes During Pregnancy


By Rita Deering and Shefali Mathur Christopher

**Physiological**  
Increased:

- Blood plasma volume
- End-diastolic volume
- Cardiac output
- Resting HR
- Coagulation
- Oxygen consumption
- Metabolic rate
- Partial pressure of oxygen
- Ligamentous laxity
- Relaxin
- Inter-recti distance
- Blood glucose levels


**Posture**

- Center of gravity more anterior
- Decreased static stability
- Increased spinal curvature
- Anterior pelvic tilt
- Scapular protraction
- Knee hyperextension
- Ankle dorsiflexion



**Gait**

- Decreased stride length
- Increased step width
- Reduced gait velocity
- Decreased single-limb support time
- Shorter swing phase
- Hip:
  - Decreased peak flexion, peak extension, and abduction
  - Increased peak external rotation, peak internal rotation, and adduction
- Knee: increased flexion and decreased extension
- Ankle: increased inversion and eversion
- Foot: increased external rotation



## Contraindications to Exercise During Pregnancy

Relative Contraindications to Exercise During Pregnancy
Mild, well-controlled congenital heart conditions
Mild preeclampsia
Thyroid disease that is not medically managed
Type I diabetes that is well controlled
Placenta previa persisting beyond 28 weeks gestation
Nutritional concerns (including eating disorders)
Mild respiratory conditions
Smoking

Absolute Contraindications to Exercise During Pregnancy
Resting heart rate >120 bpm
Systolic blood pressure ≥ 140 mmHg, diastolic blood pressure ≥ 90 mmHg (with or without proteinuria)
Pre-exercise blood glucose level ≤ 4 mmol/L
Ruptured membranes
Heart disease that prohibits strenuous exercise
Severe cardiac arrhythmias
Placental abruption
Severe respiratory conditions
Significant umbilical cord pathology (eg, vasa previa)
Type I diabetes that is not well controlled
Intrauterine growth restriction
Preterm labor
Incompetent cervix
Shortness of breath without exertion