

# Use of Gonadal Shielding

## Perspective of RSO at Community Hospital

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**Melissa C. Martin, M.S., DABR, FACR, FAAPM**

**Community College Radiologic Technology**

**Faculty Meeting**

**August 10, 2020**

# Consulting Medical Physics Group

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- **8 ABR Certified Diagnostic Medical Physicists providing medical physics and radiation safety services to over 200 facilities throughout the Western US.**
- **Some of our facilities in CA with student training programs:**
  - Huntington Memorial Hospital - Pasadena**
  - Memorial Care Medical Centers: Long Beach, Orange**
  - Providence St. John's Health Center - Santa Monica**
  - Sharp Medical Centers - San Diego**

# Activities Within AAPM

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- AAPM Liaison to Conference of Radiation Control Program Directors - over 25 years
- Goal: to incorporate the recommended changes of the AAPM Position on Elimination of Gonad Shielding from Suggested State Regulations
- CRCPD Board of Directors Voted in Support of this proposal in May 2020

# **Presentations on Elimination of Gonadal Shielding**

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- **October 2019 - Radiologic Health Branch - Radiologic Technology Certification Committee Meeting**
- **February 2020 - Kaiser Permanente Workshop for Technologists and Physicists**
- **April 2020 - CSRT Virtual Meeting**

# **Proposal to Radiation Safety Committee at Huntington Memorial**

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- **May 2020 - As RSO, Proposed Implementation of Elimination of Gonadal Shielding in our department and for all affiliated outpatient imaging centers.**
- **Discussions with Chairman of RSC, Department Administrator, Hospital Risk Analysis Dept., Hospital Safety Committee, Environment of Care Committee, Staff Technologists**

# Proposed Policy for Huntington

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- Policy was developed and presented at the May 2020 Radiation Safety Committee Meeting and re-edited and approved for adoption at the July 20, 2020 RSC meeting.
- Dr. Wang, Chairman of the RSC, presented Huntington Hospital's formal policy regarding gonadal/fetal shielding to Hill Medical's Quality Committee on 6/11/2020. All affiliated outpatient centers will adopt the same policy.
- Staff training to be developed for both the hospital and outpatient centers.

# Radiation & Fluoroscopy Safety Policy 7630.303 for Huntington

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- **PURPOSE:** The purpose of this policy is to establish a facility-wide standard for the safe and efficacious use of fluoroscopy, the compliance with specific regulations and to establish a safe working environment by minimizing radiation exposure to patients, physicians, and staff to levels as low as reasonably achievable (ALARA).
- Patient Considerations: Patients shall be assessed and educated regarding the risks and benefits of fluoroscopic procedures.
  1. Assessment. Patients selected for various extended fluoroscopic procedures should be assessed relative to the radiation risk-benefit involved in the procedure. The patient's age and pregnancy status should be among the factors considered.
  2. Guidelines for Informing Patients. Patients should be educated and informed about extensive fluoroscopic procedures and the possible side effects.

# Radiation & Fluoroscopy Safety Policy 7630.303 for Huntington

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- Placing Lead Shields on Patients: Based on numerous published studies by the Scientific communities i.e. the ICRP (NCRP) and the AAPM, and with numerous support from the following accrediting bodies and organizations; American College of Radiology (ACR), Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM), Canadian Organization of Medical Physicists (COMP), and Health Physics Society (HPS), the use and efficacy of placing lead shields have proven ineffective and counter-productive in ways where radiation exposure to the patient is actually increased. Therefore, proactive placement of lead shield (gonadal shields) on patients will be discontinued unless the patient has requested for their use.



# Request sent to Lisa Russell, CDPH, RHB:

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- Per Huntington Hospital Radiation & Fluoroscopy Safety policy 7630.303 (attached), re-edited and approved at the department level on 7/20/2020, we are, hereby, requesting an exemption from Title 17 section 30308(b) (4), pertaining to patient shielding during **all diagnostic X-ray, fluoroscopic procedures, CT scans.**
- Citing numerous documented studies, research materials, published articles (see list below), and authorities on ionizing radiation data including the NCRP, referencing its July 1st, 2020 Draft, NCRP SC 4-11. Huntington Radiology is compelled to act accordingly, as empirical data dictates, as such that lead shields have proven ineffective and counter-productive in ways where radiation exposure to the patient is actually increased.

# Next Steps for Implementation

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- 1) Wait for RHB approval for exemption from Title 17 section 30308(b) (4) requirements pertaining to patient shielding during diagnostic x-ray, fluoroscopic and CT procedures.
- 2) Develop an on -line video incorporating the Frequently Asked questions on the AAPM website for staff of both the hospital and the outpatient centers. ASRT credits will be obtained for this course for the technical staff.

# AAPM CARES

## Communicating Advances in Radiation Education for Shielding (CARES)

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- AAPM CARES is an engaged community of stakeholders committed to Communicating Advances in Radiation Education for Shielding (CARES). In April of 2019, the [American Association of Physicists in Medicine \(AAPM\)](#) released a [position statement](#) outlining reasons for limiting the routine use of fetal and gonadal shielding in medical imaging. Recognizing that removing patient shielding from routine use is a substantial shift in existing clinical practice, AAPM formed a committee to bring together stakeholders to discuss potential changes in the use of patient shielding.

# AAPM CARES

## Communicating Advances in Radiation Education for Shielding (CARES)

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- The [Ad Hoc Committee](#) includes members from over 14 professional organizations around the globe, representing medical and health physicists; radiologic technologists and organizations that oversee educational programs for radiologic technologists; radiologists; and state regulators.
- **Frequently Asked Questions**
- [Patient Gonadal and Fetal Shielding in Diagnostic Imaging FAQ](#)

# Mentions in the Media

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- [Lead aprons offer little protection during X-rays. Why do so many clinicians keep using them?](#) (STAT)
- [X-ray shields going by the wayside: What you and your patients need to know](#) (American Academy of Pediatrics News)
- [Researchers push for worldwide end to pelvic shielding in radiology](#) (Radiology Business)
- [Why You Should Ditch That Lead Apron In The X-Ray Room](#) (Forbes)

# Mentions in the Media

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- [Some hospitals say using lead aprons for X-rays does more harm than good. Lurie will stop using the shields this spring.](#) (Chicago Tribune)
- [Hospitals increasingly abandoning shielding in radiology as movement takes hold across US](#) (Radiology Business)
- [That Lead Apron in the X-Ray Room? You May Not Need It](#) (The New York Times)
- [Some hospitals are ditching lead aprons during X-rays](#) (ABC News)

# Support and Endorsement of this Position Statement from Other Groups:

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- [American College of Radiology \(ACR\)](#)
- [Australasian College of Physical Scientists & Engineers in Medicine \(ACPSEM\)](#)
- [Canadian Association of Radiologists \(CAR\)](#)
- [Canadian Organization of Medical Physicists \(COMP\)](#)
- [Health Physics Society \(HPS\)](#)
- [Image Gently](#)
- [Radiological Society of North America \(RSNA\)](#)

# Summary

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- **Huntington Radiology Department Administration, Staff, and Medical Directors feel compelled to move forward with this initiative to eliminate the use of lead shielding for all radiographic, fluoroscopic and CT exams as routine in our facilities.**
- **A supply of appropriate shields will be kept available if insistence is encountered from the patient or family after discussion with the supervising physician and staff.**



# Melissa C. Martin - Contact Information

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