

# Nursing Assessment and Interventions for Endocrine Distributors

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# What can we do as nurses?

- Assessment
- Interventions
- Nursing Research



# Nursing Assessment for Endocrine Disruptors

## ■ Adult Male

Infertility

Increased prostate size

## ■ Adult Women

Miscarriages

PCOS



# Nursing Assessment for Endocrine Disruptors

## ■ Male Infants and Children

Shortened anogenital distance

Cryptorchidism

Smaller scrotums

## ■ Female Children

Precocious & early puberty



# Medical Devices Containing DEHP

- Blood bags
- Gloves
- IV bags
- IV Tubing
- ECG Electrodes
- Enteral feeding bags
- Compression devices
- Patient ID Bracelets
- Oxygen hoods
- Oxygen masks
- Breast pumps
- Suction tubing



# Indwelling Medical Devices Containing DEHP

- Peripheral IV catheters
- PICC
- Midline catheters
- Epidural catheters
- Umbilical artery catheter
- Hemodialysis catheters
- Drains
- Endotracheal tubes
- Feeding tubes
- PEG tubes
- Peritoneal catheters
- Foley catheters



# Medical Devices Containing BPA



- Urine Specimen Cups
- Hub of IV
- Stopcocks
- Transducers
- Spinal Needle
- Infusion catheters
- Syringes



# Flame Retardants in the Medical Setting

- Intravenous pumps
- Hospital beds and mattresses
- Foldout chairs
- Hospital privacy curtains



# Everyday DEHP Items

- Toys
- Raincoats
- Shower curtains
- Fragrance
- Cosmetics
- Shampoo
- Nail Polish
- Vinyl flooring



# Everyday BPA Items

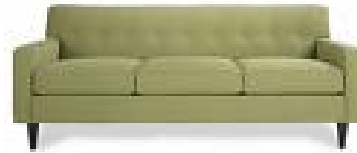


- Baby bottles
- Water bottles
- Metal cans
- Liquid formula containers
- Composite resin dental fillings



# Everyday Flame Retardants Items

- Padding of carpet
- Mattress
- Couch
- Television
- Cars
- Car Seat



# Nursing Interventions

## 1. Educate

- Colleagues
- Patients
- Administration
- Purchasing department

## 2. Create a safer work environment

## 3. Nursing Research



# Staff and Patient Education

- Talk about DEHP, BPA, and PBDE products
- Talk about antibacterial products
- Talk about pesticides
- Talk about endocrine disruptors



# Staff and Patient Education

- Never heat plastic or styrofoam
- Limit use of #3(PVC) and #7 (Other) Plastics, which may contain BPA or DEHP
- Avoid canned foods when possible



# Maternal Child Health Patient Education

- Avoid items eating or drinking products containing BPA and DEHP while pregnant or breastfeeding
- Breastfeed or use powdered formula
- Use for BPA and DEHP-Free bottles
- Purchase BPA and DEHP-Free feeding items



# Decreasing Endocrine Disruptor Exposure in the Medical Setting

- DEHP-Free medical devices
- BPA-Free medical devices
- Create fragrance-free work environment



# Boston Area NICU and Nursery DEHP Tubing Phone Survey 2009

	Using DEHP-Free Tubing
Brigham and Women's Hospital	Yes
Children's Hospital	Yes
Massachusetts General Hospital	No
Mount Auburn Hospital	Yes
Newton Wellesley Hospital	No



# How To Change to Non-DEHP Tubing

1. Start with IV tubing
2. Look at IV tubing, is it Non-DEHP
3. Look up online or call the manufacturer
4. Talk with the person who orders supplies
5. Supply FDA DEHP advisory
6. Talk with administration
7. Order DEHP-Free IV tubing
8. Inform colleagues and staff



# Institutions Undertaking Efforts to Eliminate Phthalate (DEHP)

- Brigham & Women's Hospital, Boston, MA
- Dana Farber Cancer Institute, Boston, MA
- Dartmouth-Hitchcock Medical Center, Lebanon, NH



# Resources for Decreasing DEHP in the Medical Setting

- **FDA Public Health Notification: PVC Devices Containing the Plasticizer DEHP**
- **Health Care Without Harm**  
[www.noharm.org](http://www.noharm.org)
- **Sustainable Hospitals**  
<http://sustainablehospitals.org>



# Nursing Research

- Observational studies
- Experiences of staff before, during and after going DEHP-free
- Document patient experience
- Beliefs of hand sanitizer and soap
- Quality Improvement



# Summary

- Start with small changes
- Be an advocate
- Educate
- Use fewer consumer products, make change with your wallet
- Continue to wash hands with non-antibacterial soap, especially before eating



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# Environmental Health Nursing Education Collaborative

[ehnursing.org](http://ehnursing.org)



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## **FDA Public Health Notification: PVC Devices Containing the Plasticizer DEHP**

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