

# Clinical Paediatric Basics

For on site tutorials as part of the remote simulation program  
Paediatrics: 2

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# Sponsor

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# Introductions



# General Aims

- Learn in a team setting
- Blend clinical skills with team skills
- Reflect critically on practice



# Ground Rules

- Participation
- Privacy
- Confidentiality
- Disclaimer
- Debriefing
- Mobile phones

# Session Objectives

- Discuss a comparison between paediatric and adult patients
- Demonstrate a quick basic assessment of the paediatric patient
- Understand an initial approach to paediatric patients and their parents
- Review the Paediatric Assessment Triangle

# Comparison of Adults and Children

- CHILDREN ARE *NOT* JUST LITTLE ADULTS
- Consider
  - Anatomy
  - Physiology
  - Psychology



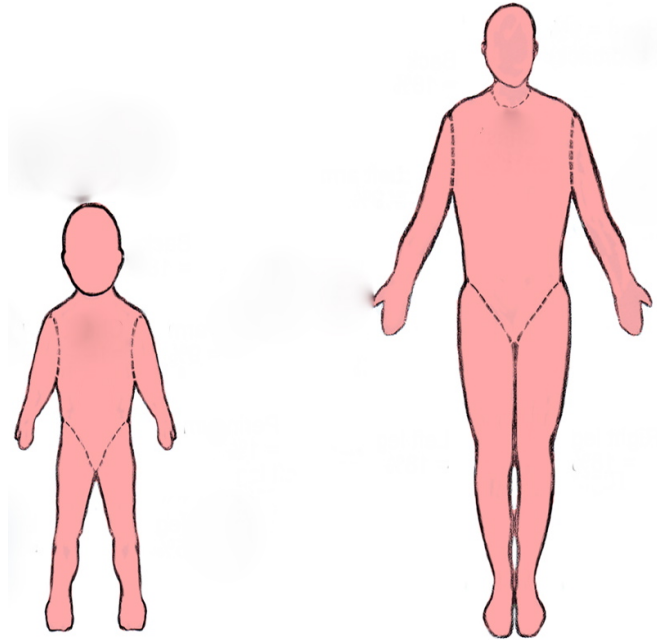
# DEFINITIONS

- PREMATURE – born prior to 37/40
- NEONATE – Newborn to one month old
- INFANT – One month old to one year old
- TODDLER – One year old to three years old
- CHILD – Three years old to 12 years old
- ADOLESCENT – 13 year old to 16-19 yo



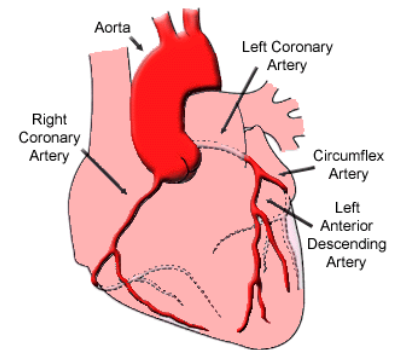
# Comparative Anatomy

- Size
- Volume to Surface Area Ratios
- Head
- Airway
- Neck
- Chest
- Abdomen



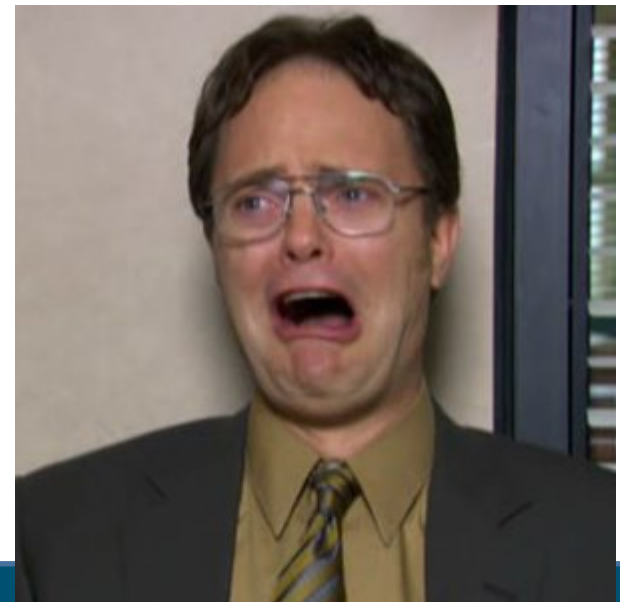
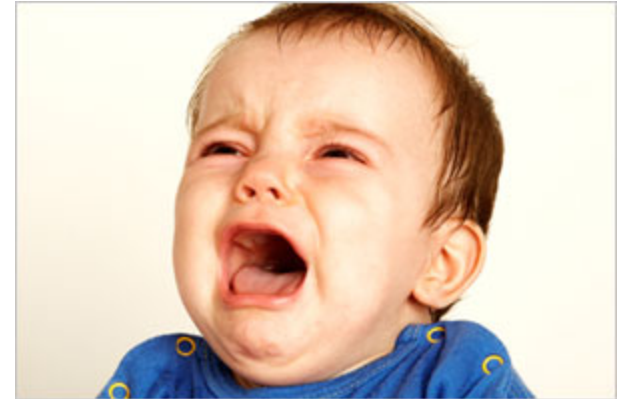
# PHYSIOLOGY

- RESPIRATORY
  - Diaphragmatic breathers
  - Higher metabolic rate
- CARDIOVASCULAR
  - More blood per kg
  - Cardiac output
- OTHER
  - Immature immune system
  - Blood vessels smaller but more resilient



# PSYCHOLOGY

- Poor understanding
- Prone to fear/distress
- Verbal Skills
- Parental behaviour
- Parental anxiety
- Child Parent feedback loop



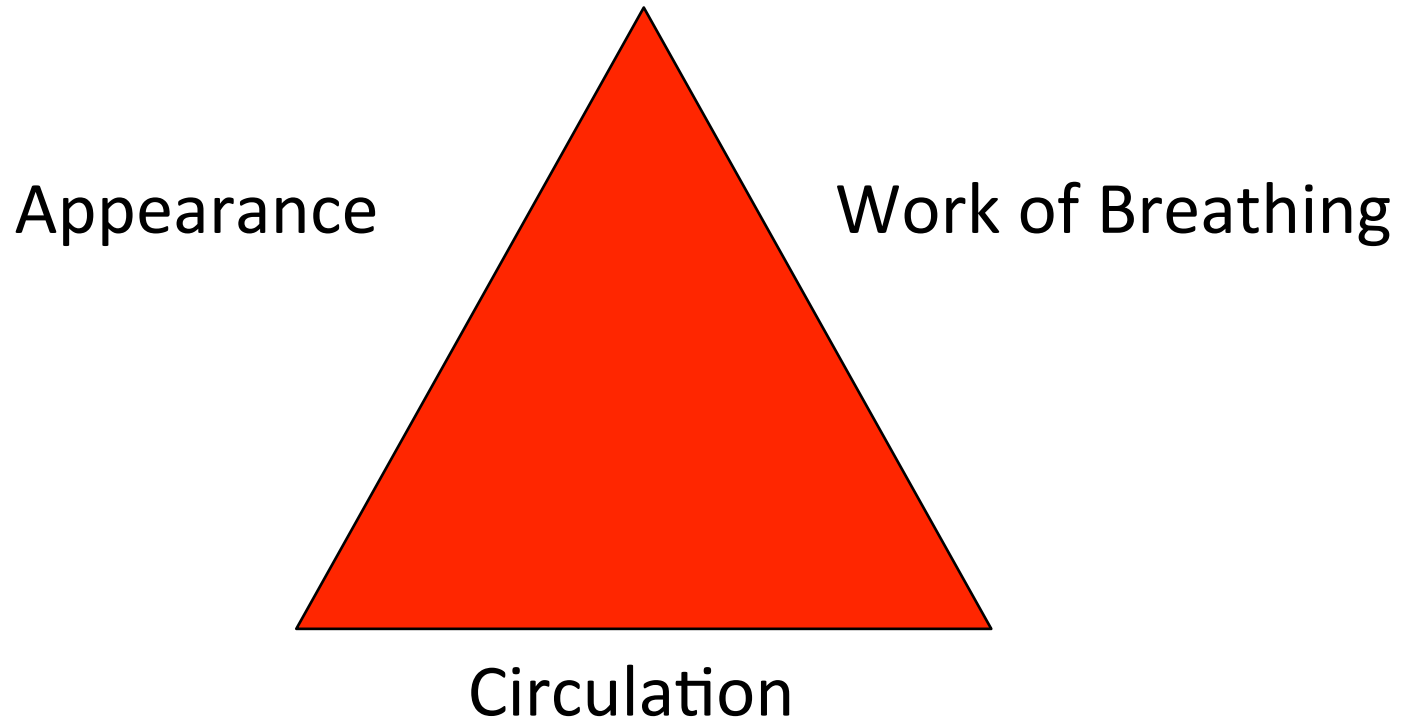
# Approaching Children

- Appearance & demeanour
- Engaging both child & parent
- Introductions, explanations & time frames
- Eye level, personal space, touch
- Distraction – toys, music, songs, rhymes
- Choice, limit setting, control, rewards
- Humour & stories
- Parental participation



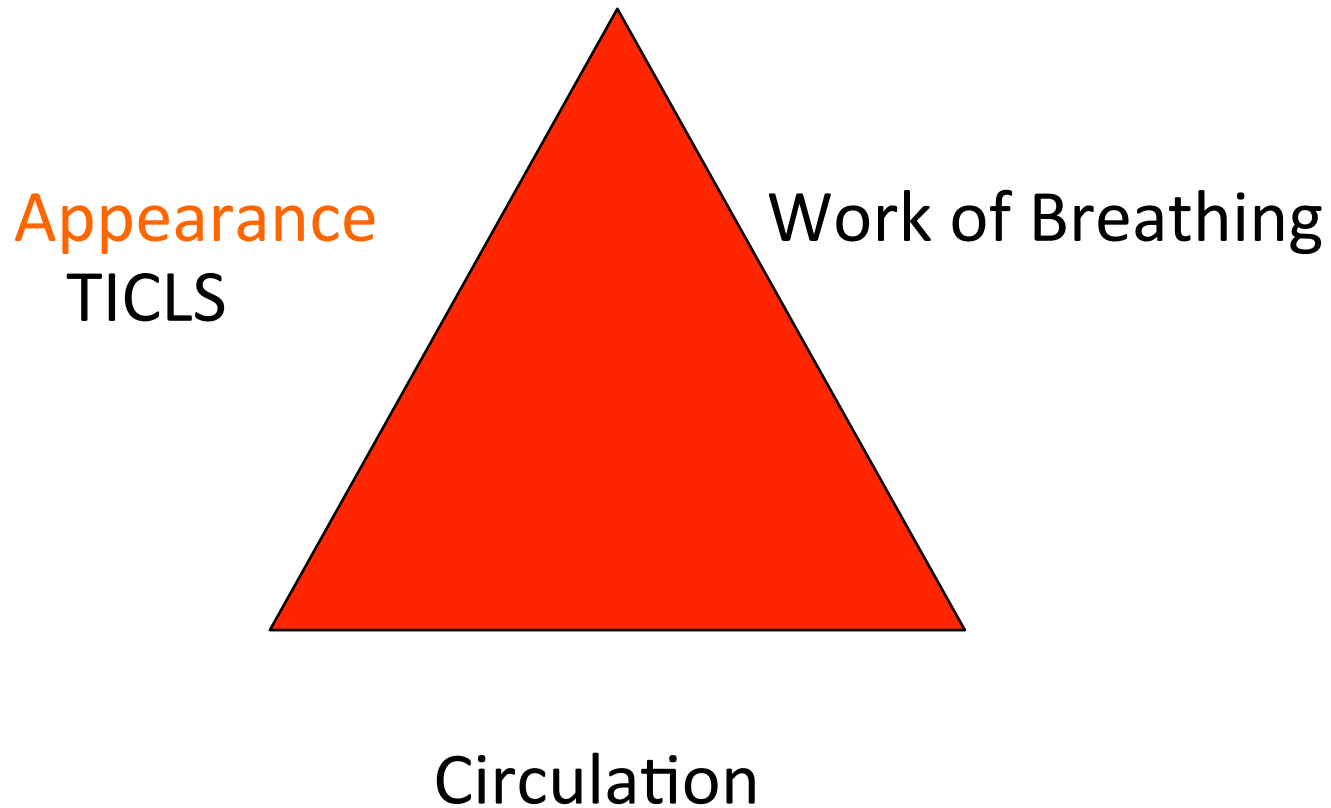


# The Paediatric Assessment Triangle



# The Paediatric Assessment Triangle

## Appearance

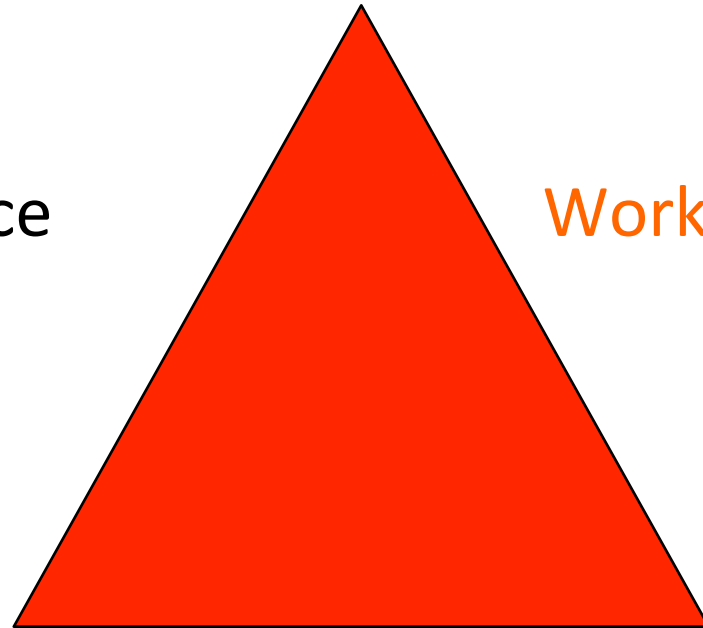


# The Paediatric Assessment Triangle

## Work of Breathing

Appearance

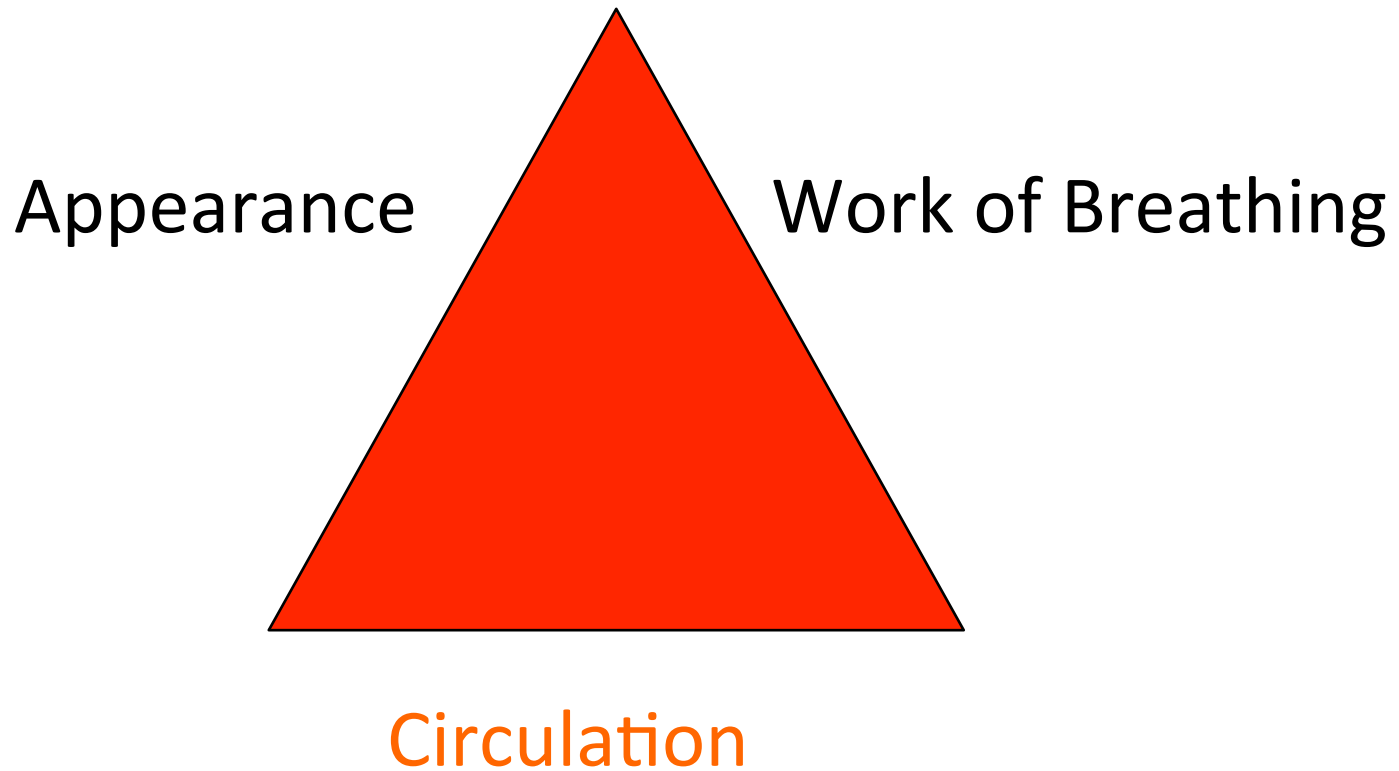
Work of Breathing



Circulation

# The Paediatric Assessment Triangle

## Circulation



# Paediatric Vital Signs

AGE	HR	RR	SBP
Premature	120-170	40-70	55-75
Neonate	95-145	30-60	60-90
Infant	125-170	30-60	75-100
Toddler	100-160	24-40	80-110
Preschool	70-110	22-34	80-110
Primary School	70-110	18-30	85-120
Secondary School	55-100	12-18	95-120

# Let's Practice

# Summary

- Children are not little adults
  - Continuum of anatomy, physiology and psychology progressing to adulthood
- The Paediatric Assessment Triangle
  - Appearance, Work of Breathing, Circulation
- Stay calm, be non-threatening, engage the child, include parents

# References

- Advanced Paediatric Life Support manual, 5<sup>th</sup> Edition
- Emedicine Medscape Paediatric resources
- Fuchs S. Cardiopulmonary resuscitation and pediatric advanced life support update for the emergency physician. *Pediatr Emerg Care* 2008;24:561–5; quiz 566–8.
- Strange GR, American College of Emergency Physicians. In: *Pediatric emergency medicine a comprehensive study guide*. 2nd edn. New York: McGraw-Hill, 2002; p. xviii.
- Google images



# Acknowledgments

**Topic expert author:** Zoe Rodgers

**Simulation session author:** Zoe Rodgers

## **Module Expert Working Party and Peer Review Team**

Nichola Concannon Staff Specialist Sydney Children's Hospital

Jane Cichero CNE Sydney Children's Hospital

Tom Grattan-Smith Staff Specialist NETS

Zoe Rodgers FACEM Prince of Wales Hospital

## **Educational consultants:**

Stephanie O'Regan Nurse Educator SCSSC

Clare Richmond FACEM

Morgan Sherwood Simulation Fellow SCSSC

Leonie Watterson Director Simulation Division SCSSC

John Vassiliadis Deputy Director SCSSC

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