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Medical Group

Sepsis – Dr Guy Cunliffe



# Sepsis in Children

- Introduction:
  - Sepsis is a life-threatening condition that arises when the body's abnormal immune response to an infection causes injury to its tissues and organs. While it's a concerning issue for people of all ages, it's particularly critical in children due to their vulnerable immune systems.

## Prevalence:

- Sepsis in children is more common than we may realise.
- In the UK each year around 25,000 children are diagnosed with sepsis, while between 1000-4000 children < 5 years are estimated to die.
- It is crucial for us to be aware of the signs and symptoms of sepsis, as well as how to prevent it. Here's a brief video which illustrates the point that it can happen to any one of us

## Video:

- <https://sepsistrust.org/about/about-the-charity/our-current-campaigns/sepsis-savvy/>

## Causes:

- Sepsis can be caused by various types of infections, including bacterial, viral, or fungal. Common sources of infection in children include pneumonia, urinary tract infections, skin infections, and gastrointestinal infections. In some cases, even minor cuts or scrapes can lead to sepsis if not properly treated.
- Sepsis can be caused by a huge variety of different germs, let's look at the names of a few fairly common bacteria that can cause sepsis and meningitis (infection of lining of brain and spinal cord):

## Causes:

- Meningococcal
- Pneumococcal
- Haemophilus influenzae type b (Hib)
- Group B Streptococcal
- Group A Streptococcal
- E Coli.

# Symptoms:

- **Temperature:**

- Over 38 C in babies under 3 months. Over 39 C in 3-6 months. Temperature for > 5 days
- Low temperature < 36 C (3 occasions, over 10 minutes)
- Very cold hands and feet

- **Breathing:**

- Very fast breathing, nostrils flare
- Grunting (babies) or noisy/crackly

## Symptoms:

- **Body and activity:**
  - Very lethargic / difficult to wake
  - Shivers and Shakes or Fitting / convulsion / seizures
  - Weak, high pitched or continuous crying (babies)
  - Confusion or unusually irritable (could be Pain in Joints/Muscles)
  - Soft spot on a baby's head is bulging
  - Stiff neck, especially when trying to look up and down (Older children)
  - Headaches (Older children)
  - Unusually sleepy, stiff or floppy baby



## Symptoms:

- Skin & lips:
  - Blue skin, lips or fingers and toes
  - Very pale or mottled skin
  - A rash that *does not* fade when pressed with a glass
- Eating, drinking, and toilet habits:
  - Not had a wee or wet nappy for 12 hours or more
  - Very thirsty and not able to keep fluids down
  - Bloody or black 'coffee ground' sick
  - Refusal to feed (babies)

Rash:



# Rash:



# Vaccination:

- 8weeks:
  - Haemophilus influenzae type b (Hib)
  - Meningococcal B
- 12weeks
  - Hib
  - Pneumococcal
- 16weeks
  - Hib
  - Meningococcal B
- 1year
  - Hib
  - Meningococcal B and C
  - MMR
  - Pneumococcal
- 3year
  - MMR
- 14year
  - Meningococcal A C W Y

## Prevention:

- Vaccinations!
- Good hygiene
- Be aware

## Summary of Signs:

1. High fever or low body temperature
2. Rapid breathing or noisy breathing
3. Increased heart rate
4. Lethargy or extremely sleepy
5. Confusion
6. Skin rash or mottly
7. Decreased urine output
8. Severe pain or abnormal cry

## Conclusion:

- Sepsis is a serious condition that can affect children of all ages, particularly babies and toddlers - but let's not forget teenagers.
- Being aware. We can work together to protect our children from this potentially life-threatening condition.
- Flash cards and leaflets are available here to take home with you
- Thank you all, for your attention.

Any questions?

