

# Paediatric Intravenous Maintenance Fluids

As with medications, calculations for maintenance paediatric fluids are based on the child's body weight. Therefore, it is vital that all children are weighed where possible and in infants under 3 months of age this should be a bare weight.

Calculating Paediatric Maintenance Fluids		Tips in Children
Patient weight	Maintenance fluid mLs per hour	<ul style="list-style-type: none"> <li>Sodium Chloride 0.9% + Glucose 5% is the usual choice of paediatric maintenance fluid.</li> <li>For safety reasons, paediatric maintenance fluids should be hung with the use of a burette.</li> <li>For safety reasons, the IV pumps should be set with an hourly volume to be infused and reset every hour with a cannula site check for signs of extravasation.</li> <li>Strict fluid balance charts are recommended.</li> </ul>
3-10kg	4 x Weight	
10-20kg	40 plus 2x (weight-10)	
Greater than 20kg	60 plus 1x (weight-20)	
<b>Maximum: 100 mL/hour (2400 mL/day)</b>		



## ALERT

Infants and children should be weighed at each emergency encounter. Where possible approximate weights should be avoided.

Infants are at high risk of hypoglycaemia if supplemental glucose is not provided. Ensure that maintenance fluids contain glucose unless contradicted.

Seek prompt senior nursing/medical advice for any child noted to have changes in neurological status or new onset of nausea/vomiting during or after fluid administration.

## For further information:

[CHQ Guideline: Intravenous fluid guideline – paediatric and neonatal \(QH only\)](#)

[CHQ Guideline: 24-hour paediatric fluid balance chart \(QH only\)](#)

### Video:

[STORK – Fluid maintenance video](#)

## References:

This Queensland Paediatric Emergency Nursing Skill Sheet was developed by the Emergency Care of Children working group (funded by the Queensland Emergency Department Strategic Advisory Panel) with the help of the following resources:

Children's Health Queensland Hospital and Health Service. (2018a, April 3). Intravenous Fluid guidelines - Paediatric and Neonatal. [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0025/705670/gdl-01025.pdf](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0025/705670/gdl-01025.pdf)

Children's Health Queensland Hospital and Health Service. (2019, September 26). Gastroenteritis - Emergency management in children. <https://www.childrens.health.qld.gov.au/guideline-gastroenteritis-emergency-management-in-children/>

Queensland Health State wide ED Nurse Educator Committee, Pearson, N., Cole, T., & Carney, S. (Eds.). (2016). Unit 8 Renal, Fluids and Electrolytes. In Queensland Health: Transition Support Program - Emergency. Module 3 - Paediatric Care in the Emergency Department (4th ed., pp. 143-145). State of Queensland (Queensland Health).



## Nursing Skill Sheet Legal Disclaimer

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- Providing care within the context of locally available resources, expertise, and scope of practice.
- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.

- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

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