

# Colloid resuscitation

## Colloid resuscitation

The most commonly used colloid is human albumin solution. Plasma proteins are responsible for inward oncotic pressure that counteracts the outward capillary hydrostatic pressure. Albumin should be preferably administered after the first 12 hours post burn as the massive fluid shifts drive proteins out of the cells. The most common colloid-based formula is the Muir and Barclay formula, which estimates the amount of fluid that needs to be infused during the first 36 hours post burn: the basic formula is:  $TBSA\% \times \text{weight (kg)} \times 0.5 = \text{one portion}$ ; six portions are given in total over 36 hours: give one infusion 4 hourly for 12 hours (three portions in total); Alexis Frank Hartmann, 1898–1964, pediatrician, St Louis, MO, USA, described the solution; should not be confused with the name of Henri Albert Charles Antoine Hartmann, French surgeon, who described the operation that goes by his name. Sidney Ringer, 1835–1910, Professor of Clinical Medicine, University College Hospital, London, UK. Parkland Memorial Hospital, Dallas, TX, USA. Ian Fraser Kerr Muir, 1921–2008, plastic surgeon, Aberdeen Royal Infirmary, Aberdeen, UK, referred to as 'a gentle giant of plastic surgery'. Thomas Laird Barclay, 1925–2007, plastic surgeon, Royal Infirmary, Bradford, UK. in total); the final infusion to be given over 12 hours. The original Muir and Barclay formula utilised fresh-frozen plasma as the colloid of choice. Both albumin and fresh-frozen plasma are maintained in the blood bank and are more expensive; excessive use can cause additional pressure on the renal system. Colloid resuscitation

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