

# Appendices:

Appendix 1:

## Search Terms

1. paediatric OR pediatric OR paediatrics OR pediatrics OR paediatr\* OR pediatric\* OR child\*
2. orthopaedic OR orthopedic OR orthopaed\* OR orthoped\*
3. surgery OR surgeries OR surger\* OR procedure OR procedures OR procedur\*
4. tourniquet OR tourniquets OR tourniq\*
5. 1 AND 2 AND 3 AND 4

## Appendix 2:

### Bias Assessment

Study ID	Risk of Bias	Comments
Lynn et al(45)	Low	
Goodarzi et al 1992(47)	Low	
Reilly et al(65)	Low	
Prakash et al(73)	Low	
Hanna et al(62)	Low	
Ashraf et al(68)	Low	
Baghdadi et al(78)	Low	
Tareco et al(76)	Low	
Hanlon et al(56)	Low	
Lieberman et al(64)	Moderate	Insufficient detail on intervention (Detail of surgeries performed is not provided).
Vas et al(63)	Moderate	Unclear intra-operative monitoring protocol. No statistical analysis reported.
Inan et al(53)	Moderate	Small sample size. One surgeon (? Influence of surgical technique). Unclear if there is a difference in malnutrition between the groups and how this is monitored.
Cai et al(81)	Moderate	Unclear patient selection and allocation to intervention group (how patients were allocated to hybrid vs dual plating).
Ross et al(41)	Moderate	Insufficient detail on protocol used for measurement of outcomes.
Goodarzi et al 1997(46)	Moderate	Insufficient detail on intervention.
Reinhardt et al(79)	Moderate	Unclear how patients were allocated to nails vs ORIF (retrospective) and follow-up times are not reported and not standardised ("until union", "at the latest appointment a functional assessment was performed to judge ROM)
Yalcinkaya et al(54)	Moderate	Unclear selection criteria, two centres, unclear if same surgeons or not and how many children from each centre. Follow-up not clearly reported.
Watts et al(80)	Moderate	Small sample size, multiple surgeons, no standardised protocol, unclear follow up time.
Sullivan et al(40)	Moderate	Small sample size (although rare disease). Short follow-up time (6 weeks - some patients could have presented to their local / other hospital and take longer than 6 weeks to be referred to main unit).
Ryan et al(82)	Moderate	Unclear how many surgeons of different seniority were involved (one of main conclusions is that the more junior the surgeon the higher the risk of complications).
Tredwell et al(55)	Moderate	Unclear patient selection, small sample size for component of the study investigating wrinkling (n=2), insufficient detail on how complications are reported in the survey.
Silver et al(57)	Moderate	Unclear inclusion criteria, small patient sample, intervention not

		uniform, no controls.
Bloch et al 1992(44)	High	Unclear patient selection, controls did not undergo orthopaedic operations, incomplete information on intervention (operations performed and tourniquet details not specified).
Bloch et al 1986(43)	High	Controls used did not undergo orthopaedic operations, anaesthetic protocol not uniform.
Schrock et al(49)	High	Unclear patient selection, no statistical analysis of correlations, unclear follow-up.
Slawski et al(50)	High	Unclear population selection, unclear intervention protocol, no statistical analysis (as too many subgroups and small numbers).
Ida et al(61)	High	One case. Causality of tourniquet not clearly established.
Kang et al(67)	High	Unclear patient selection criteria, insufficient detail on measured outcomes.
Murphy et al(60)	High	Only symptomatic patients had USS. Only the characteristics of patients with DVT were analysed.
Eidelman et al(66)	High	Unclear selection, analysis of risk factors performed only on small number of patients with VTE.
Saw et al(51)	High	Case report. Difficult to establish causality.
Tamai et al(69)	High	No standardised protocol for administration, no description of post op care and follow-up (e.g. casting could result in neuro symptoms), follow-up not uniform.
Jardaly et al(52)	High	No clear selection criteria for allocation to CRIF vs ORIF. No clear description how many if any went from CRIF to ORIF as could not be reduced. Patient selection (42.1% patients obese). Claim that there were no ligamentous or meniscal injuries but no description of how this was determined (states that no pre-op MRI were done).
Misra et al(48)	High	Unclear patient selection criteria, small sample size (n=2), insufficient detail on intervention and measured outcomes.
Hodgins et al(58)	High	Small patient sample (n=2), intervention protocol not standardised (shut off not used in one case).
Dickinson et al(77)	High	Small patient sample (n=3), insufficient detail on intervention and protocol used.
Oginni et al(42)	High	Unclear protocol for measurement of outcomes, unclear length of follow-up.
Zampieri et al(70)	High	Retrospective, non-randomised. Significant number of patients in Group B underwent additional procedure. Degree of patella instability was not quantified pre-op.
Lindgren et al(71)	High	Unclear selection criteria. Small sample size. Surgeon's equipoise in choice of treatment. No detail about satisfactory fracture healing /evidence of malunion/ non-union prior to refracture.