

Title Treatment of Infants Suspected with KISS (Kinematic

Imbalance Due to Suboccipital Strain)

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## Aim

To assess the effects of treatment techniques for infants with suspected kinematic imbalance due to suboccipital strain (KISS).

## Conclusions and results

Several academic disciplines (eg, manual therapist, chiropractors, and osteopaths) offer treatment for infants with suspected KISS. Treatment options include spinal manipulation of the upper neck joints and exercises for relaxation and mobilization.

We identified one randomized controlled trial showing that osteopathy can potentially reduce the degree of postural asymmetry in infants, but the study did not reveal any changes in vegetative parameters following treatment. It must be emphasized that these conclusions are based solely on one small study, suggesting that the strength of the evidence is too low to draw reliable conclusions about treatment effects.

We found no evidence suggesting that manual therapeutic, osteopathic, or chiropractic treatment strategies in infants are associated with risks for injuries or harmful side effects, but the level of evidence is very low. Hence, it is impossible to draw conclusions about treatment effects and potential adverse effects.

## Methods

Several databases, including The Cochrane Library, MEDLINE, EMBASE, PEDro, and AMED, were systematically searched for trials evaluating the effectiveness of manipulation or mobilization techniques in infants suspected of having KISS. Databases were also searched for evidence on adverse effects.

## Further research/reviews required

Randomized controlled trials on short- and long-term treatment effects are needed with respect on asymmetry and vegetative outcomes (eg, excitability, excessive crying, and eating and sleeping disorders). Large observational studies may add valuable information about adverse effects.