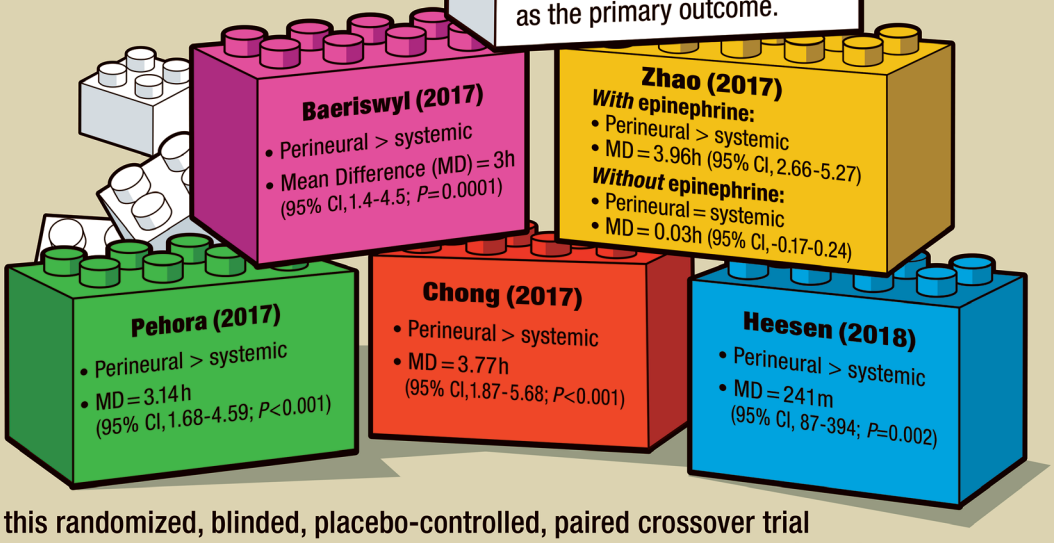
# BUILDING BLOCKS

## Studies of Adjunct Perineural *vs.* Systemic Dexamethasone in Peripheral Nerve Blocks

Multiple meta-analyses have evaluated perineural *versus* systemic dexamethasone as an adjunct to local anesthetic for peripheral nerve block.[1] All evaluated duration of analgesia as the primary outcome.




In this randomized, blinded, placebo-controlled, paired crossover trial in healthy volunteers, Maagaard *et al.* evaluated sensory block duration after ulnar nerve block with perineural dexamethasone, systemic dexamethasone, or placebo.[1]

The primary outcome was duration of sensory block assessed by temperature discrimination in the hypothenar eminence.

- Mean difference for perineural dexamethasone *vs.* placebo = 66 m (95% CI, 24-108); *P*=0.005
- Mean difference for systemic dexamethasone *vs.* placebo = 36 m (95% CI, -30-103); *P*=0.260

## CONCLUSIONS

A. Perineural dexamethasone resulted in greater duration of ulnar nerve block compared to placebo in healthy volunteers

B. Systemic dexamethasone resulted in similar duration of ulnar nerve block compared to placebo in healthy volunteers

C. A *post hoc* linear mixed-effects model did not change the conclusions

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1. Maagaard M, Stormholt ER, Nielsen LF, Bærentzen F, Danker J, Zachodnik J, Jæger P, Mathiesen O, Andersen JH: Perineural and systemic dexamethasone and ulnar nerve block duration: A randomized, blinded, placebo-controlled trial in healthy volunteers. ANESTHESIOLOGY 2023; 138:625–33