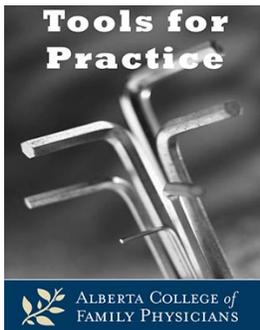


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**Tools for Practice is taking a summer break on August 17 and will return to its regular bi-weekly publication schedule on August 31.**

August 4, 2015



## **Evaluating the Epley Maneuver: When one good turn deserves another**

**Clinical Question: How effective are Epley maneuvers in the treatment of Benign Paroxysmal Positional Vertigo (BPPV)?**

**Bottom-line: Epley maneuvers will lead to the complete resolution of symptoms in every 2-3 patients treated. Post-Epley movement restriction does not improve symptom resolution but might promote a negative Dix-Hallpike for one in every 10 patients treated.**

### **Evidence:**

- Six systematic reviews of Randomized Controlled Trials (RCTs): Consistently support Epley maneuvers (as classically described) despite considerable heterogeneity.<sup>1-6</sup>
  - Most recent (11 RCTs, 745 patients):<sup>1</sup>
    - Epley versus control at 24 hours to four weeks, results statistically significant:
      - Resolution of symptoms (five RCTs, 273 patients): 56% versus 21% with control, Number Needed to Treat (NNT)=3.
      - Conversion from Positive to Negative Dix-Hallpike (eight RCTs, 507 patients): 80% versus 37% with control, NNT=3.
    - Few small studies compare Epley to other maneuvers and report equivalence (example Semont and Gans Maneuvers) or inferiority of these interventions (example Brandt-Droff).
  - Post-Epley movement restriction such as neck brace or postural advice (avoiding lying on affected side for 1-5 days and sleeping upright for 24-48 hours).<sup>7,8</sup> Two systematic reviews of RCTs: Slightly different inclusion criteria leading to different conclusions:<sup>7,8</sup>
    - Largest:<sup>7</sup>
      - Resolution of symptoms and negative Dix-Hallpike (nine RCTs, 1,078 patients): 86% versus 85% without restriction.
    - Smallest:<sup>8</sup>
      - Resolution of symptoms (two RCTs, 119 patients): Not statistically different 52% versus 41% without restrictions.
      - Negative Dix-Hallpike (nine RCTs, 528 patients): Statistically different 89% versus 78% without restrictions.

**Context:**

- Natural history of BPPV unclear.<sup>1</sup> One small trial reported that 36.5% of patients experienced recurrence of symptoms over 48 months.<sup>9</sup>
- Classical Epley maneuver is performed by a clinician. Online examples are available.<sup>10,11</sup>
- Two small RCTs demonstrated that self treatment with the modified Epley maneuver (three times daily until symptoms resolve) can result in significant symptom improvement.<sup>12,13</sup>
  - Examples available online;<sup>14</sup> however, trials that demonstrated improvement included initial supervision of the maneuver by an instructor.<sup>12</sup>
- Adverse events poorly reported. Most commonly: Neck discomfort, transient nausea, and disequilibrium.<sup>8</sup>

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**Disclosure:**

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