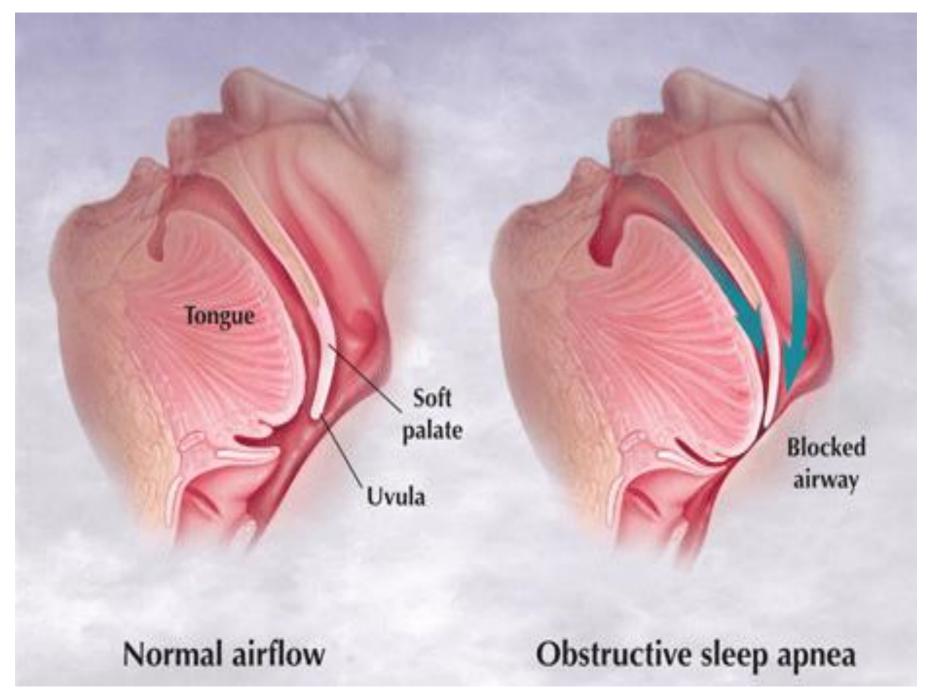
# Obstructive sleep apnoea. Overview and novel approaches to the diagnostic workup and treatment

Associate Professor Darren Mansfield Monash University and Monash Health Melbourne Australia















## Prevalence among Western communities

- 24% adult males
- 9% adult females







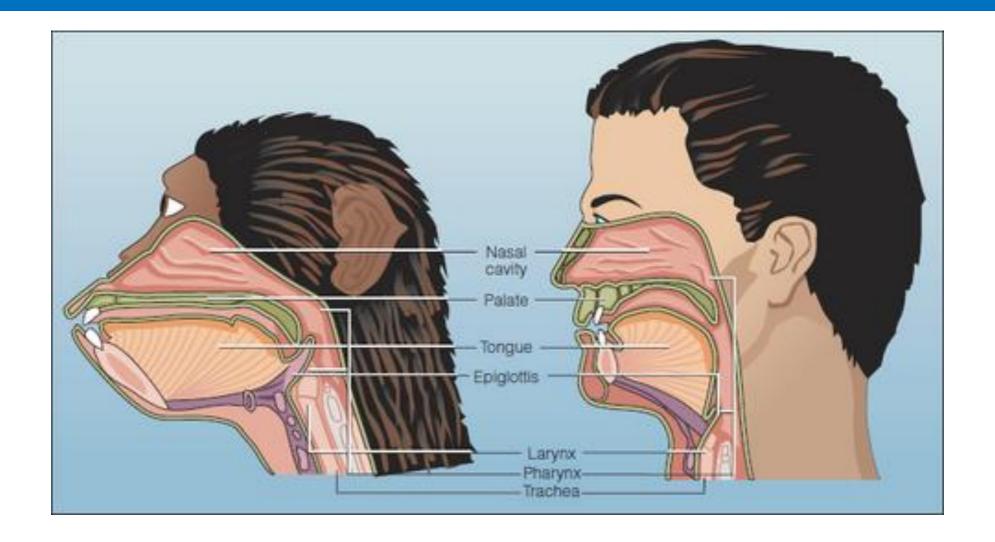
## Common symptoms

- Poor sleep quality
- Nocturia
- Unrefreshed sleep
- Dry throat
- Morning headache
- Daytime sleepiness
  - May not be volunteered unless asking about passive situations

















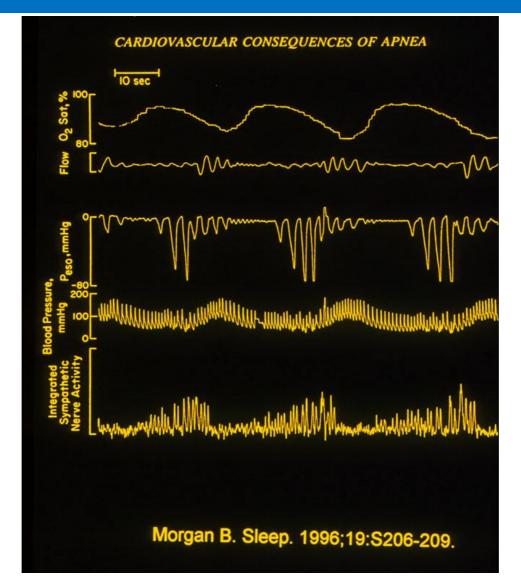


Sleepiness affects performance, accident risk, mood and quality of life





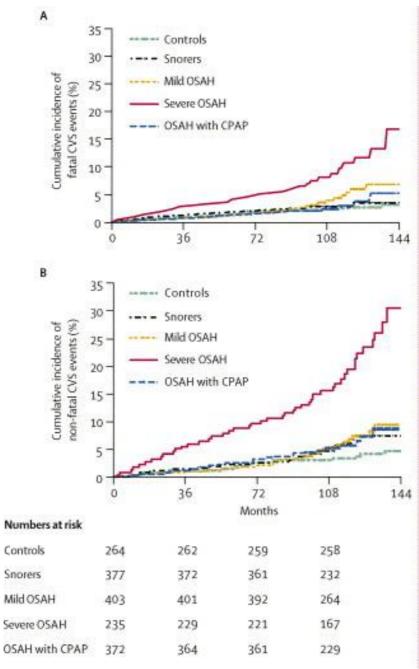
















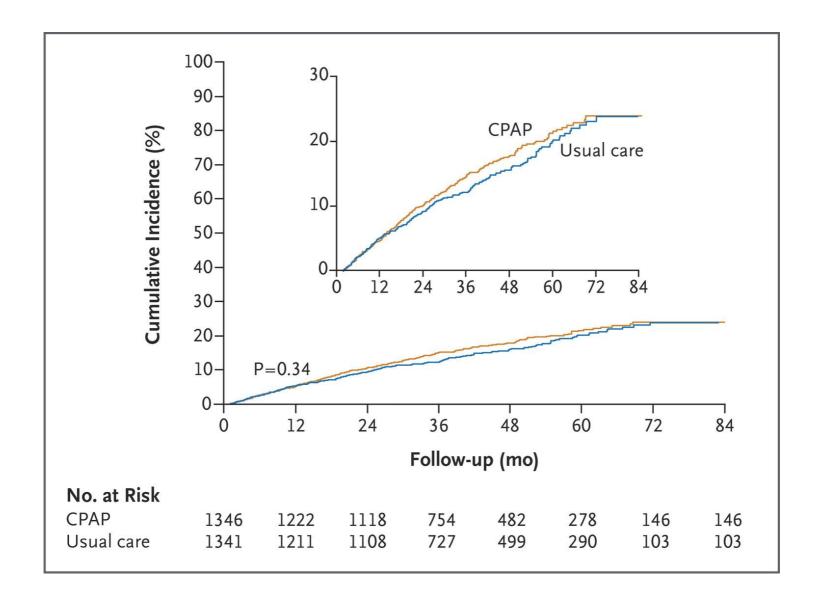


# Affect of sleep apnoea on hypertension

Systematic review of randomised controlled trials Improves BP by approx 2mmHg

More pronounced in more severe sleep apnoea and more difficult to manage hypertension

#### Save Trial McEvoy et al: NEJM 2016







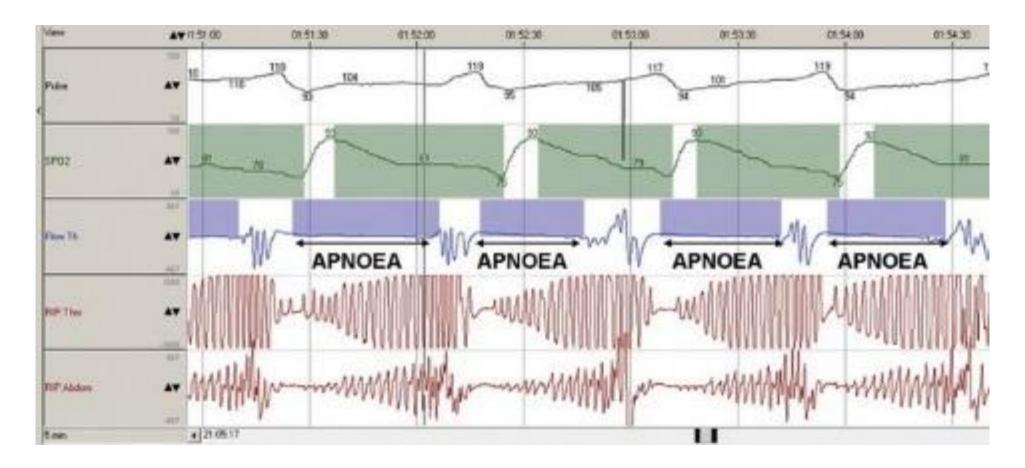












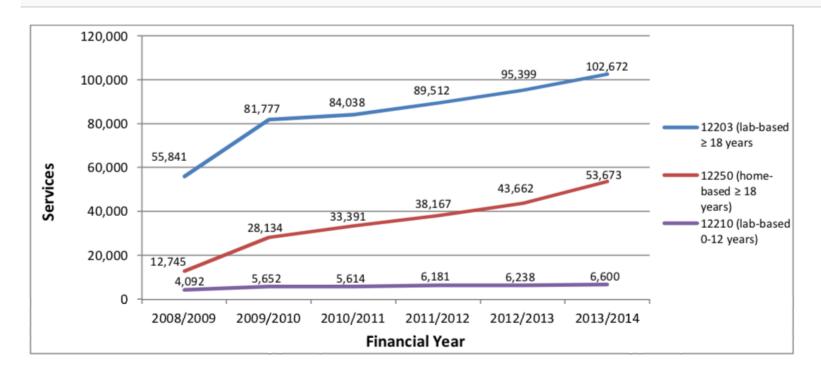






#### **Done**

#### MBS Report -Thoracic.pdf





























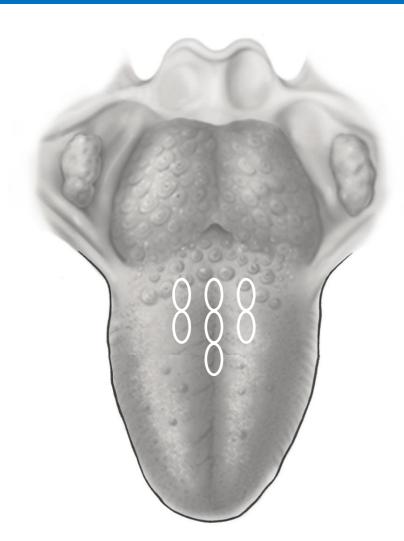
### Surgery Huge tonsils

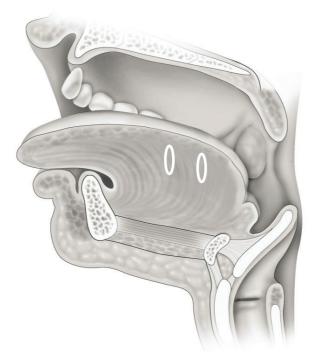




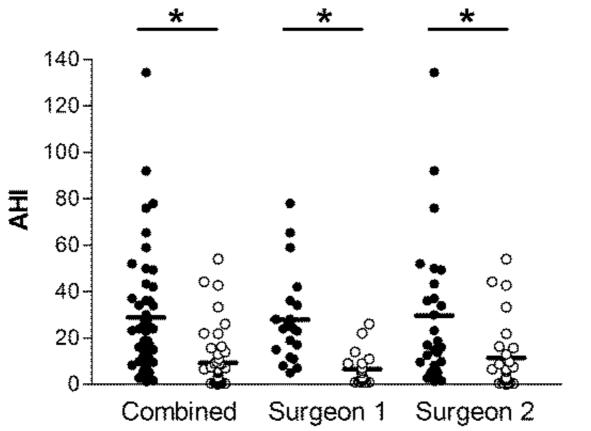


**MonashHealth** 





SG. MacKay et al J Clin Sleep Medicine Feb 2013



SG. MacKay et al J Clin Sleep Medicine Feb 2013



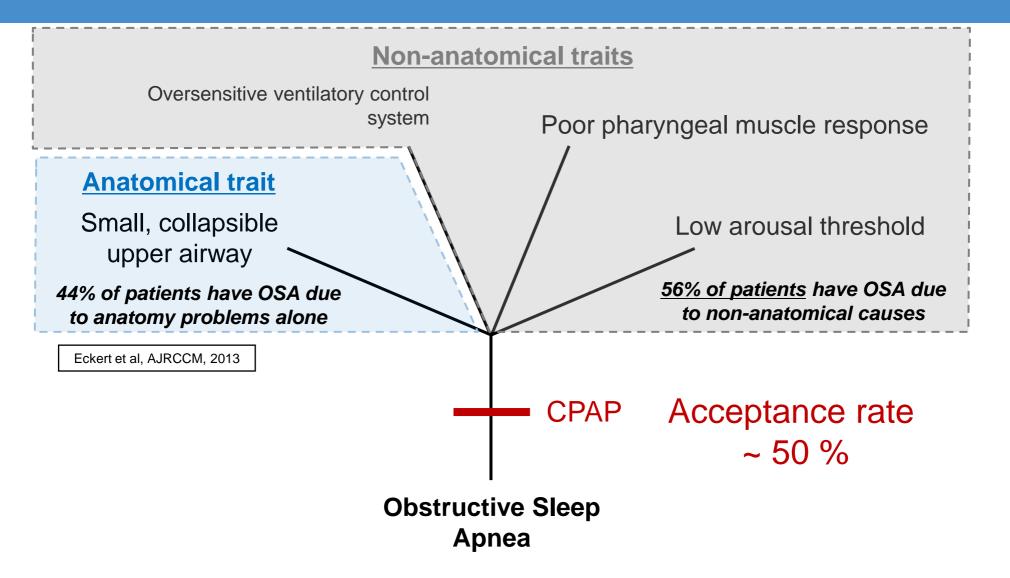
After







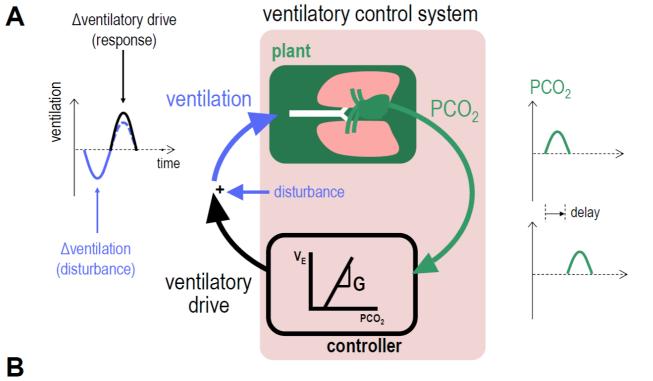
## Phenotypic Traits Causing OSA

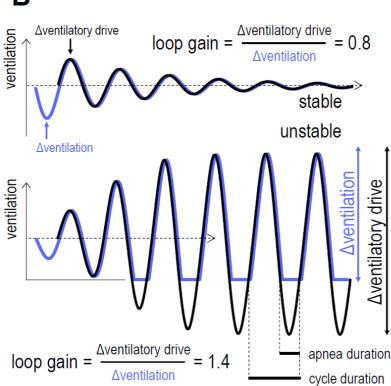


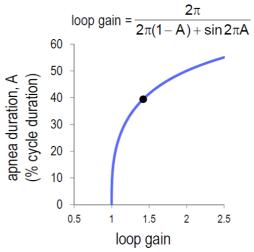




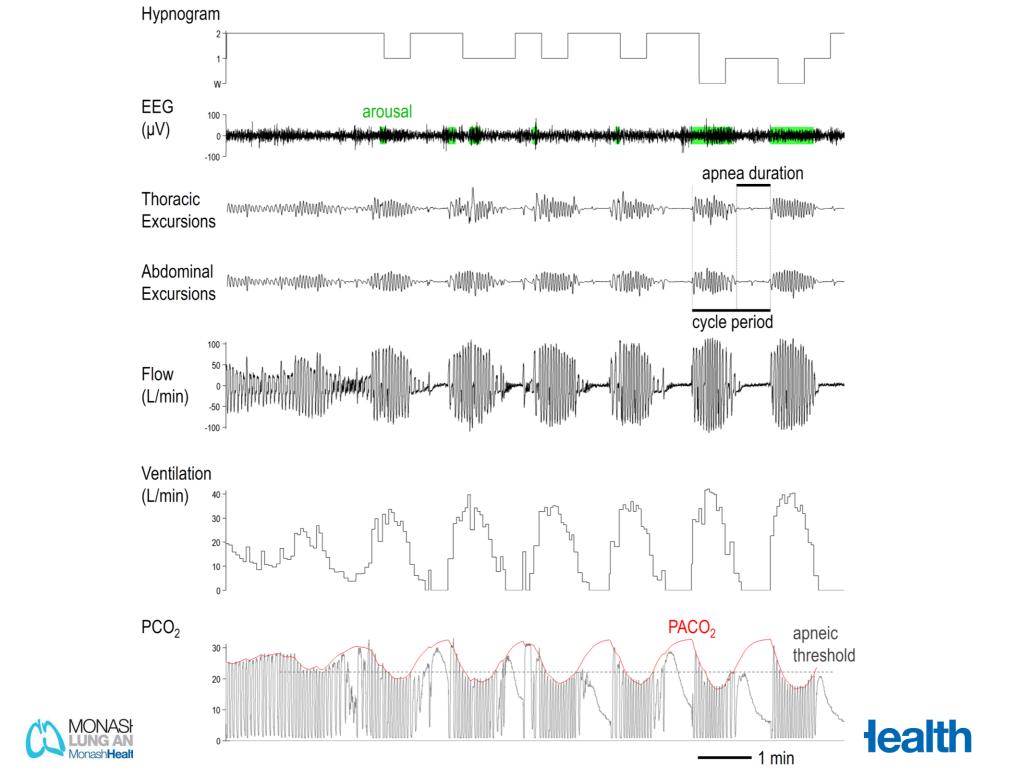




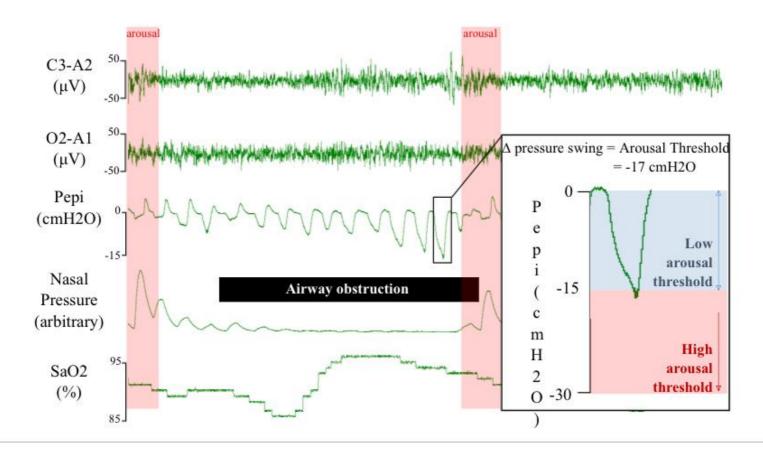








### Measuring the arousal threshold

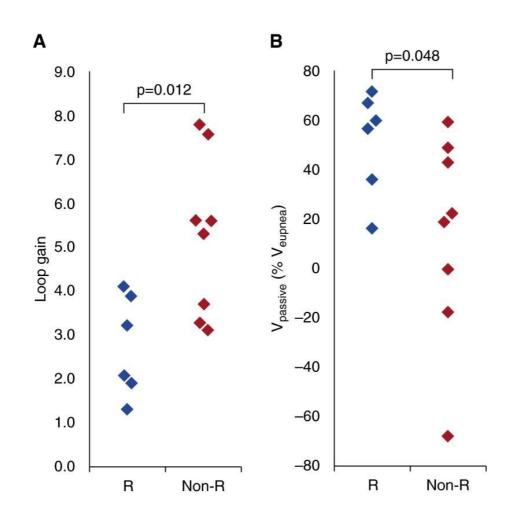








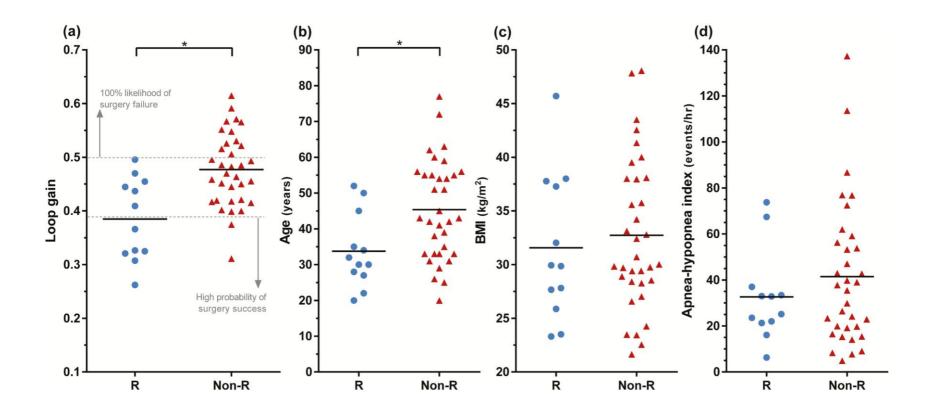
## Loop gain as a predictor for success with a mandibular advancement splint











From: Loop Gain Predicts the Response to Upper Airway Surgery in Patients With Obstructive Sleep Apnea Sleep. 2017;40(7). doi:10.1093/sleep/zsx094

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## Conclusion

Sleep apnoea is known to affect:

Sleepiness and neurocognition

Mood

Hypertension where the benefits of treatment are confined to more severe refractory hypertension and more severe sleep apnoea

Long term improvements in cardiovascular risk are not clear

Newer approaches may have greater success as better predictive tools emerge







