The effect of inspiration on airway dimensions measured in CT images from the Danish Lung Cancer Screening Trial

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FWMH and EI both showed statistically significantly lower values using IR instead of standard FBP (FWMH: B30/30=113.3 vs. 92.1; B50/50=167.6 vs. 115; B70/70=197.8 vs. 137.5; EI: B30/30=4.8 vs. 2.8; B50/50=11.3 vs. 5.8; B70/70=20 vs. 6.6). There was a significant lower variation between the different kernels using IR when compared to FBP. Image noise was reduced by 27% when compared to FBP.

**Conclusion:** Variation of quantitative emphysema chest CT parameters between different reconstruction kernels is significantly reduced with IR when compared to FBP and may increase the robustness for therapy planning.

**References:**

1. Johnson: B.-0161
2. de Bruijne, M. de Bruijne: Grant Recipient; AstraZeneca.