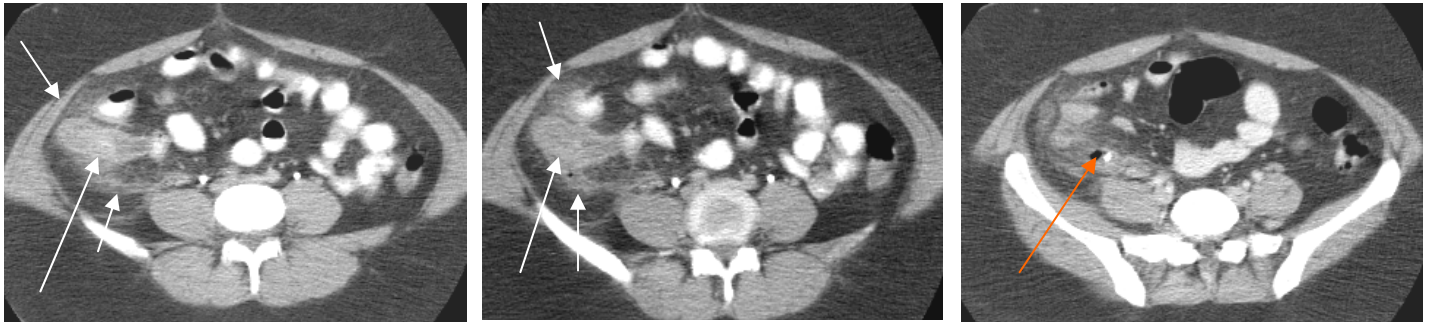


## Helical CT of the Appendix: State-of-the-art imaging of appendicitis



Inflamed appendix with periappendiceal inflammation (white arrows) and suggestion of a calcified appendicolith (red arrow).

### **Q. What is the most accurate imaging test for diagnosis of appendicitis?**

Although one may start with plain films and ultrasound, helical CT is by far the most accurate imaging study. In addition, CT can detect other causes of abdominal pain including GU abnormalities and abdominal tumors.

### **Q. How is it performed?**

At AIC, we obtain 3 helical sets of high-resolution (3 to 5 mm) images through the abdomen with attention to the right lower quadrant (RLQ): (1) a precontrast set; (2) an immediate post-contrast set (arterial-venous phase); and (3) a delayed phase. Oral contrast is given prior to the exam to opacify the bowel particularly the terminal ileum and cecum. Each scan takes about 30 seconds. The entire procedure can be performed in a few minutes, not forgetting that the patient needs to be prepped first with oral contrast. If IV contrast is contraindicated, a non-contrast study is often adequate for the diagnosis. **Multiplanar reformations** may be performed on our Advanced 3D Silicon Graphics Workstation to produce "BE-like" coronal sections depicting the cecum and appendix in the RLQ.

### **Q. What are some of the findings on helical CT?**

A normal appendix can usually be visualized on helical CT. An inflamed appendix, calcified appendicolith, periappendiceal inflammation or fluid collection/abscess or mass can readily be identified.

**CONCLUSION:** If you have a patient with inconclusive clinical findings of appendicitis ...

**Think helical CT for definitive diagnosis!**

For more information, or for any questions or concerns, please call me personally.

*Ray Hashemi, MD*

Ray H. Hashemi, M.D., Ph.D.  
Director