

# Using VolumeRAD™ to detect scaphoid fracture in single session treatment

Images and case courtesy of:  
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## History

A patient at the Princess of Wales Hospital in Bridgend, Wales, UK, presented with wrist pain. Dr. Siân Phillips and her team examined the patient, using the Rule of 70s and VolumeRAD to help diagnose a scaphoid carpal bone fracture.

## Rule of 70s

The scaphoid is the only bone which bridges the proximal and distal carpal rows, and it is the most commonly fractured bone in the wrist – 70 percent of wrist fractures are scaphoid fractures. Seventy percent of scaphoid fractures fracture at the waist. Seventy percent of the fractures end up uniting.

## Scaphoid carpal bone fractures

With scaphoid fractures, the patient frequently overlooks the fracture because it feels like “just a sprain.” Unlike the forearm, hand and finger bones, fractures of the scaphoid seldom show any obvious deformity of the wrist, and the injury’s lack of swelling sometimes makes the patient feel like they’re experiencing something less than a broken bone.

## Diagnosis and treatment

The team first conducted a routine four-view scaphoid exam. No fracture was detected on these exams, which often happens with this type of injury. The team then ordered a VolumeRAD exam, which revealed a cortical fracture.

Dr. Phillips identified the scaphoid fracture through the detail available through the VolumeRAD images. In this instance, VolumeRAD obtained valuable clinical information during this single session of care that the team used to initiate a successful treatment plan.

## Summary

Even though initial digital images did not show an injury, the detail of the VolumeRAD image helped Dr. Phillips locate the injury and potentially keep the patient from undergoing additional imaging.



Standard four-view wrist examination:  
no abnormality detected on X-ray



VolumeRAD slices:  
fracture of distal scaphoid pole



Magnified view  
of VolumeRAD slice

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