

# Rothman at Jefferson research suggests abandon convention in diagnosing periprosthetic joint infection

February 8 2012

---

In their search for new, better ways to diagnose periprosthetic joint infection, Rothman Institute at Jefferson researchers have discovered that measurement of C-reactive protein in the synovial fluid is extremely accurate, while measuring a patients' serum white blood cell count (WBC) and the percentage of neutrophils (PMN%), the conventional method for diagnosis, has a minimal role in the determination of PJI.

The synovial fluid is the [viscous liquid](#) that lubricates the joints and feeds the cartilage.

"This research indicates that we may need to reexamine how we diagnose PJI," said Javad Parvizi, MD, director of Research at the Rothman Institute and Professor of Orthopedics at Jefferson Medical College.

The study retrospectively examined 2,067 cases of revision hip or [knee arthroplasty](#) between 2004 and 2010. Of these, 961 cases had a diagnosis of PJI based on institutional criteria. Preoperative WBC counts and PMN numbers were examined at and found to be only 58.8 percent sensitive for infection and 62.2 percent specific for WBC; and 57 percent sensitive and 71 percent specific at the determined threshold of 7,650 cells/ml.

The results will be shared at the American Academy of Orthopedic

Surgeons (AAOS) annual meeting on Wednesday, February 8th at 11:24 am Pacific Time.

"Our study confirms the long held belief that serum white [blood cell count](#) and differential has minimal role in routine work-up of patients with suspected PJI," said Parvizi, an author on this influential study.

Provided by Thomas Jefferson University

Citation: Rothman at Jefferson research suggests abandon convention in diagnosing periprosthetic joint infection (2012, February 8) retrieved 25 April 2024 from <https://medicalxpress.com/news/2012-02-rothman-jefferson-abandon-convention-periprosthetic.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.