

THE PARTICLE COUNTER USED FOR ORTHOPAEDIC RESEARCH March 2012

In studies of potential materials for use in an artificial joint replacements, wear of these materials is an important factor to examine. Particles produced during the articulation of the materials that make up a joint replacement have the potential to produce inflammation around the joint and subsequent loosening of the implant. To examine wear, we articulate materials of interest against each other in a lubricating solution. After collecting and processing the lubricating solution, we use the Spectrex laser particle counter to quantify the average size and number of particles present. The overall aim is to know which material couples produce the fewest particles, as it is not desirable to have wear particles present in articulating joint replacements.

Christine Dozier, Fellowship of Orthopaedic Researchers