

**EFFECTIVE DATE:** 03 | 03 | 2009

**POLICY LAST UPDATED:** 07 | 21 | 2015

## OVERVIEW

Computer-assisted navigation (CAN) in orthopedic procedures describes the use of computer-enabled tracking systems to facilitate alignment in a variety of surgical procedures, including fixation of fractures, ligament reconstruction, osteotomy, tumor resection, preparation of the bone for joint arthroplasty, and verification of the intended implant placement.

## MEDICAL CRITERIA

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### BlueCHiP for Medicare and Commercial Products

Computer-assisted musculoskeletal surgical navigational orthopedic procedures are considered not medically necessary as there is insufficient evidence in published, peer-reviewed literature to support their efficacy.

## COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement, or Benefit Booklet for limitations of benefits/coverage when services are not medically necessary.

## BACKGROUND

Computer-assisted navigation (CAN) in orthopedic procedures describes the use of computer-enabled tracking systems to facilitate alignment in a variety of surgical procedures. These surgical procedures include fixation of fractures, ligament reconstruction, preparation of the bone for joint arthroplasty, and verification of the intended implant placement. The goal of CAN is to increase surgical accuracy and reduce the chance of malposition of implants.

CAN devices may be image based or non-image based. Image based devices use preoperative computed tomography (CT) scans and operative fluoroscopy to direct implant positioning. Newer non-image based devices use information obtained in the operating room, typically with infrared probes. CAN systems direct the positioning of the cutting blocks and placement of the prosthetic implants based on the digitized surface points and model of the bones in space. The accuracy of each step of the operation (cutting block placement, saw cut accuracy, seating of the implants) can be verified, thereby allowing adjustments to be made during surgery.

Given the low short-term revision rates associated with conventional procedures, and the inadequate power of available studies to detect change in function, studies assessing health outcomes using a larger number of subjects, with longer follow-up, are needed. The available scientific evidence at this time has not adequately demonstrated improved health outcomes associated with CAN.

## CODING

### BlueCHiP for Medicare and Commercial Products

The following codes are not medically necessary:

**20985            0054T            0055T**

## RELATED POLICIES

None

## PUBLISHED

Provider Update, August 2015

Provider Update, January 2015

Provider Update, June 2013

Provider Update, May 2012

Provider Update, April 2011

Provider Update, May 2010

Provider Update, April 2000

## REFERENCES

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