Importance There is increased interest in nonpharmacological treatments to reduce pain after total knee arthroplasty. Yet, little consensus supports the effectiveness of these interventions. Objective To systematically review and meta-analyze evidence of nonpharmacological interventions for postoperative pain management after total knee arthroplasty. Data Sources Database searches of MEDLINE (PubMed), EMBASE (OVID), Cochrane Central Register of Controlled Trials (CENTRAL), Cochrane Database of Systematic Reviews, Web of Science (ISI database), Physiotherapy Evidence (PEDRO) database, and ClinicalTrials.gov for the period between January 1946 and April 2016. Study Selection Randomized clinical trials comparing nonpharmacological interventions with other interventions in combination with standard care were included. Data Extraction and Synthesis Two reviewers independently extracted the data from selected articles using a standardized form and assessed the risk of bias. A random-effects model was used for the analyses. Main Outcomes and Measures Postoperative pain and consumption of opioids and analgesics. Results Of 5509 studies, 39 randomized clinical trials were included in the meta-analysis (2391 patients). The most commonly performed interventions included continuous passive motion, preoperative exercise, cryotherapy, electrotherapy, and acupuncture. Moderate-certainty evidence showed that electrotherapy reduced the use of opioids (mean difference, −3.50; 95% CI, −5.90 to −1.10 morphine equivalents in milligrams per kilogram per 48 hours; P = .004; I² = 17%) and that acupuncture delayed opioid use (mean difference, 46.17; 95% CI, 20.84 to 71.50 minutes to the first patient-controlled analgesia; P < .001; I² = 19%). There was low-certainty evidence that acupuncture improved pain (mean difference, −1.14; 95% CI, −1.90 to −0.38 on a visual analog scale at 2 days; P = .003; I² = 0%). Very low-certainty evidence showed that cryotherapy was associated with a reduction in opioid consumption (mean difference, −0.13; 95% CI, −0.26 to −0.01 morphine equivalents in milligrams per kilogram per 48 hours; P = .03; I² = 86%) and in pain improvement (mean difference, −0.51; 95% CI, −1.00 to −0.02 on the visual analog scale; P < .05; I² = 62%). Low-certainty or very low-certainty evidence showed that continuous passive motion and preoperative exercise had no pain improvement and reduction in opioid consumption: for continuous passive motion, the mean differences were −0.05 (95% CI, −0.35 to 0.25) on the visual analog scale (P = .74; I² = 52%) and 6.58 (95% CI, −6.33 to 19.49) opioid consumption at 1 and 2 weeks (P = .32, I² = 87%), and for preoperative exercise, the mean difference was −0.14 (95% CI, −1.11 to 0.84) on the Western Ontario and McMaster Universities Arthritis Index Scale (P = .78, I² = 65%). Conclusions and Relevance In this meta-analysis, electrotherapy and acupuncture after total knee arthroplasty were associated with reduced and delayed opioid consumption.