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## RESEARCH ARTICLE

### Litigation Involving Hip and Knee Arthroplasty in the State of California

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#### Abstract:

##### Background:

Total hip and knee arthroplasties are generally very successful surgical procedures; however, if there is a complication or if the patient is dissatisfied with the outcome, the patient may initiate a legal suit against the surgeon.

##### Methods and Results:

We evaluated the reasons for instigating a legal suit after hip or knee arthroplasty surgery in the State of California between 1981 and 2018. Using a verified database and the keywords hip, knee, replacement, arthroplasty, we identified 12 legal suits filed and adjudicated on during this time period. Of the 12 cases, the major complaints were pain (seven cases), foot drop (three cases) numbness (two cases), foreign item left in the body of the patient (one case), general physical problems (one case), and wrongful death (one case). In some cases, more than one reason was listed (note: the total is greater than 12 because some cases had more than one reason listed).

##### Conclusion:

In reviewing these cases and the literature on this subject, we conclude that in order to avoid legal suits, doctors should be communicative, honest, and compassionate with patients, be highly competent in their specialty, and maintain meticulous medical record documentation.

**Keywords:** Total knee replacement or arthroplasty, Arthroplasty, Total hip replacement or arthroplasty, Litigation, State of California, Surgical.

#### Article History

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## 1. INTRODUCTION

Hip and knee arthroplasties are commonly performed procedures worldwide. The number of total knee arthroplasties has increased more than three-fold between 1993 and 2009, while the number of total hip arthroplasties doubled during the same time period [1]. Hip and knee arthroplasties are generally quite successful, however, on occasion they can be associated with complications. These complications may lead patients to sue the surgeon who performed their operation. Though there is no written contract per se between the surgeon and the patient, there is an implied contract between them. Medical malpractice is a type of tort action (a civil wrong). Types of medical malpractice include breach of duty (negligence) and *res ipsa loquitor* (where the occurrence of a problem implies negligence), among others [2]. According to one study, the

three most common reasons for a legal suit to be initiated in the United States after hip and knee arthroplasties ranked from the most to least common are nerve injury, limb length discrepancy, and infection [3]. Conversely, in the United Kingdom, the three most common reasons for a claim after a hip surgery was a neurological deficit. The most common cause of complaint from knee arthroplasties was related to infection. [4].

Even if doctors fully explain all aspects of the procedure to the patient including potential risks, benefits, and complications as part of the informed consent process, if the outcome of the surgery is not ideal, the surgeon is at risk for a lawsuit. There is a very high likelihood that an orthopaedic surgeon will encounter a litigious patient at least once in his or her career. In fact, in one study, 78% of responding surgeons had been named as a defendant in at least one lawsuit alleging medical malpractice [3]. A total of 69% of lawsuits have been dismissed or settled out of court, and the median settlements were in the range of 51,000 to \$99,000 [3]. In another study

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that looked at malpractice claims by orthopaedic surgeons who were insured by a large New York state malpractice carrier (the cases were performed between 1982 and 2012), the mean indemnity was \$325,369, the largest single settlement was \$2.42 million, and the average expense relating to the defense of these cases was \$66,365 [5].

Given the generally litigious legal environment in the United States, our goal was to evaluate patients' reasons for initiating a lawsuit after joint arthroplasty of the lower extremity in the State of California as well as to analyze the outcomes of lawsuits and the procedure types.

## 2. MATERIALS AND METHODS

Westlaw (www.westlaw.com) is an online database of legal cases in the United States and the United Kingdom operated by Thomson Reuters Corporation (Eagan, Minnesota, US). The cases included in the present study were identified by searching under the key words: arthroplasty, replacement, hip, knee for the years 1981 through 2018 using the Westlaw database for the State of California. Cases that were not included were those related to company negligence, insurance and worker's compensation claims, negligent operation of devices/machinery causing injury, nursing negligence, elder abuse, company accommodation for injuries, economic damages due to accidents, spousal support for injuries, and litigation only against implant or pharmaceutical companies. The cases were summarized, and key data were extracted including the year of the lawsuit, age of patient, type of surgery, where the surgery took place, what implant was used

(if mentioned), outcome of the surgery, the reason for complaint, and what type of settlement was reached.

## 3. RESULTS

Of the 12 cases, the major complaints were pain (seven cases), foot drop (three cases) numbness (two cases), foreign item left in the body of the patient (one case), general physical problems (one case), and wrongful death (one case). In some cases, more than one reason was listed (note: the total is greater than 12 because some cases had more than one reason listed.) These cases are summarized in Table 1 below.

## 4. DISCUSSION

According to a recent study concerning orthopaedic lawsuits after joint arthroplasties of the hip and knee in America as a whole, infection was cited as the most common cause of complaint (22% of cases) [6]. Nerve injury was cited second (20%). Leg length discrepancy, implant dislocation, continuing/worsening pain, and death were cited in a total of 10% of cases. Perioperative fracture and implant malalignment were cited in 9% and 8% of cases, respectively. Compartment syndrome, leg amputation, deep vein thrombosis and pulmonary embolism, anesthesia complication, post-operative bleeding/hematoma, and osteosarcoma were cited in less than 5% of cases. The remainder of cases were included in other categories. For total knee arthroplasties, the most common complaint was infection. For total hip arthroplasties, nerve injury was cited in 38% of the cases. In these cases, 74% ended in a verdict for the defense, 21% ended in a verdict for the plaintiff, and 5% ended in settlement [6]. According to another

**Table 1. Summary of legal suits concerning joint arthroplasty in the state of california.**

Surgery/Implant Type	Complaint	Outcome
Total knee arthroplasty of both knees	• Pain	It was decided that the doctor complied with the standard of care
Unicompartmental knee arthroplasty	• Pain	The judgement was initially made in favor of the doctor, then reversed on appeal
Knee arthroplasty surgery	• Damage to sciatic nerve causing foot drop	The malpractice action was moved to compel arbitration
Total hip arthroplasty	• Numbness in both legs, pain, foot drop nerve irritation (neuropraxia)	Verdict was in favor of the doctor
Knee arthroplasty	• Pain	Verdict in favor of the doctor
Hip arthroplasty	• Sciatic nerve injury during surgery • Pain, numbness	Ruled in favor of the doctor
Open reduction surgery on left hip and closed reduction on right hip for fracture, followed by another open reduction surgery on right hip and total knee arthroplasty on right leg	• Persistent pain and weakness in right leg and groin area	The judgement was in favor of the doctor
Partial hip arthroplasty	• Rubber cap was left in patient's hip socket	The initial judgement in favor of the surgeon was reversed
Bilateral total hip arthroplasty	• Pain	Judgement in favor of the doctor
Hip arthroplasty	• Residual physical problems (reason not specified)	Doctor's demurrer* was sustained, <i>i.e.</i> the complaint was insufficient to establish a valid cause of action
Total hip arthroplasty	• Wrongful death	Ruled in favor of the defense
Total hip arthroplasty	• Pinched nerve causing drop foot	The doctor's demurrer was overruled, and an amended complaint was filed

\* The term "doctor's demurrer" is a response in which the defendant in a court proceeding states that, even if the facts in a complaint are true, they are insufficient to justify a valid cause for legal action.

study, based on the records between February 1988 and May 2005 using a database called VerdictSeach operated by ALM Media Properties (New York, New York, US) which included 119 total hip and 94 total knee arthroplasties, 15% of the cases ended in settlement and 29.6% ended in favor on the plaintiff [7]. The most common cause of complaint was nerve injury, followed by pain or weakness. In another study that focused on lawsuits filed between 2009 and 2015 in a 5-county metropolitan area in Northeastern United States, the main causes of lawsuits were infection, nerve injury, chronic pain, vascular injury, periprosthetic fracture, retention of a foreign body, dislocation, limb-length discrepancy, followed by various other concerns [8].

Based on our literature analysis, the most common observation in complaints arising from patient depositions was the feeling of being alone after sustaining an adverse event. Plaintiffs described having trouble contacting their practitioner. There was also the issue of the defendant (surgeon) who performed the procedure being replaced by a more junior member, such as a resident. It is essential that the primary doctor informs the patient that more junior individuals will participate in the procedure (commensurate with their level of experience), under the supervision of the attending physician. The consent form should also include this information. In a major portion of cases, health professionals are perceived by patients or family members to have suggested malocurrence, which can be defined as less than an ideal outcome in medical care. In one study, 17 people responded that they perceived that another health professional (*i.e.* not the original treating practitioner) suggested malocurrence (54.8%) [8]. It is important to emphasize that, according to the American College of Physicians Ethics Manual, that “it is unethical for a physician to disparage the professional competence, knowledge, qualifications, or services of another physician to a patient or third party or to state or imply that a patient or imply that a patient has been poorly managed or mistreated by a colleague, without substantial evidence” [9].

The way we deal with medical malpractice in the United States originates from a series of factors including quality of care, society’s desire to regulate and control medical practice, insurance and its implications, inability to find consistent assessment of liability by the court, and evolution of the health care industry as health care delivery becomes increasingly impersonal. External parties are often called in as expert witnesses to contribute to these cases. In one study that focused on malpractice litigation in orthopedic surgery between 2013 and 2017, 43.1% of doctors testified on behalf of the defense, whereas, 56.9% testified on behalf of the plaintiff [10]. In regards to malocurrence, it has become a standard of care to explain adverse events to the patient and their family directly after surgery if something has gone wrong. Physicians need to be trained to describe the event in a manner that is not likely to provoke a lawsuit. For instance, the physician can apologize for what happened and explain that these sorts of events may occur without any negligence on the part of the physician.

In 1975, the California Legislature enacted the Medical Injury Compensation Reform Act (MICRA) whose intent was to lower medical malpractice liability premiums by decreasing potential tort liability for healthcare providers in the State of

California [11]. Thus, non-economic damages from a lawsuit were capped at \$250,000, and plaintiff’s attorney’s fees are limited on a sliding scale (that depends on the amount of the settlement or verdict) from 40% to 15%.

There are many myths about medical malpractice including that this is a new problem [11]. In fact, the first malpractice case recorded in the United States was *Cross v. Guthery*, a 1794 Connecticut case in which a man sued his doctor over the death of his wife. Furthermore, accounts from civil war documents include cases of surgeons refusing to perform surgeries for fear of being sued. Another myth is that the current legal system is effective. The goal of the tort system is to punish those who commit negligence and deter future negligence by others. Another myth is that patients sue primarily because of money. In fact, monetary reasons are not the primary cause of suits. Patients sue because they want to prevent the problem from being repeated. They also want the medical staff to take responsibility for their actions. Another myth is that a large number of lawyers are the root of the problem, when in fact the number of lawyers is not correlated to the number of medical malpractice lawsuits; in fact, it is the number of doctors that predict the number of lawsuits. Another myth is that frivolous law suits are the main source of the problem. However, from the plaintiff’s point of view, the individual has a major medical problem(s) and a poor outcome that they believe is directly related to the surgeon’s actions. Doctors may believe that there is nothing that he/she can do to avoid legal suits. In fact, the strongest predictor of the likelihood of being sued is how well the doctor communicates with patients. If the doctor is open, straightforward, and empathetic, then they are less likely to get sued. Many believe that judges and juries favor plaintiffs. In fact, the outcome of a legal suit generally favors doctors.

The four “Cs” of risk management include compassion, communication, competence, and charting. Some key rules for doctors are being honest, being objective, and having legible notes. Various methods of preventing complications that lead to lawsuits include, but are not limited to maintaining surgical checklists, making use of digital preoperative planning, continuous monitoring and evaluation of the patient, and medico-legal training of junior surgeons [11]. According to another study, preventative measures include procedure specific informed consent and preoperative teaching sessions for patients that outline procedural steps and possible risks [12].

The authors recognize that their series is small but encompasses all cases in the State of California over nearly a 40-year period using a verifiable database. The authors practice in the State of California and limited their review to this state for several reasons. First, the laws and procedures concerning medical malpractice fall, for the most part, under state law rather than federal law. Therefore, there could potentially be different standards of law and procedure applied in different states. Limiting the study to the State of California, the most populous state in the union, with almost 40 million inhabitants makes the data analysis more uniform. The authors also limited their study to hip and knee arthroplasty only. Different subspecialties have very different reasons for litigation, that are very specific to the anatomical location and whether an implant was used.

## CONCLUSION

In summary, medical malpractice suits are common after hip and knee arthroplasty and are a “fact-of-life” in all orthopaedic practices. The most common causes of legal suits after hip and knee arthroplasty in California include residual pain and foot drop. Specific measures to help prevent these occurrences include honest and transparent discussions with patients about their ailment, careful preoperative planning and execution of the surgical procedure, and compassionate post-operative care.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Not applicable.

## HUMAN AND ANIMAL RIGHTS

No animals/humans were used for studies that are the basis of this research.

## CONSENT FOR PUBLICATION

Informed consent was obtained from all the participants prior to publication.

## AVAILABILITY OF DATA AND MATERIALS

The data used in this study are available at Westlaw ([www.westlaw.com](http://www.westlaw.com)) an online database of legal cases in the United States and the United Kingdom operated by Thomson Reuters Corporation (Eagan, Minnesota, US).

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None.

## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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