

# Ischemia-reperfusion-induced acute kidney injury

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## Abstract

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## Materials

- ✓ NaCl 0.9% by Contributed by users
- ✓ Buprenorphin 961425 by Contributed by users
- ✓ surgical Staples 138007 by Contributed by users
- ✓ surgical material by Contributed by users
- ✓ 1ml syringe 9161406V by Contributed by users
- ✓ 23G Needles 4657667 by Contributed by users
- ✓ Gauzes by Contributed by users
- ✓ Artery Clamp by Contributed by users

## Protocol

Once the mouse is anesthetized, we place it face up on the electric blanket, to maintain the body heat.

### Step 1.

We make with scissors an incision in linea alba, at the level of the kidneys. The incision will have to be as small as possible, but of sufficient size to work comfortably.

### Step 2.

Trying to manipulate the intestinal package as little as possible, we locate the renal pedicle (located behind the intestines, a deep red color). We will do the ischemia in the left kidney of the mouse (during the operation, the one on our right).

### Step 3.

Clean the conjunctiva around the pedicle with a pair of forceps and clamp it with the artery clamps, thus performing ischemia. to. a. If the ischemia is well made the kidney will darken, becoming black in a few minutes. b. In older mice the technique is complicated because of the greater amount of fat. c. Once the ischemia was performed, the analgesic BUPREX was injected with the mouse: 200-300ul dilution 1:20 (in saline). Ex: 15ul BUPREX + 300ul NaCl.

### Step 4.

We maintain ischemia for 30 minutes, keeping the mouse covered with gauze and watching at all times for no bleeding.

### Step 5.

When removing the artery clamps that are producing ischemia, we see how it reperfusion the kidney in just a few seconds.

**Step 6.**

The peritoneum is continuously sewed, azole powders are added and the skin is closed with staples.

**Step 7.**

We injected 200ul of saline to the mouse so that it is hydrated.

**Step 8.**