



Capsule Endoscopy

What is capsule endoscopy?

The capsule endoscope, developed by Given® Diagnostic Imaging System, received FDA approval in August of 2001. Capsule endoscopy utilizes a wireless video camera, small enough to swallow, to perform painless endoscopic imaging of the small intestine. The capsule is only 11mm by 30mm (about the length of a nickel). It contains a camera, light source, radio transmitter, and battery. Patients simply swallow the capsule and the camera takes and transmits about two images per second as it travels through the gastrointestinal (GI) tract. Patients wear a recording device approximately the size of a personal Walkman around his or her waist. Thousands of video images are transmitted by sensors taped to the abdominal area. These images are stored on the recording device, and later downloaded onto a computer for viewing by the physician. Capsule endoscopy assists in diagnosing GI conditions such as bleeding, malabsorption, abdominal pain, tumors, Crohn's Disease, infectious enteritis, celiac sprue, and drug-induced ulceration.

How does the capsule move through the GI tract?

The capsule is swallowed with water, then moves naturally through the gastrointestinal tract, just like food. The single use capsule is not digested or absorbed into the body and is eliminated naturally.



Does capsule endoscopy replace a diagnostic endoscopy?

Capsule endoscopy does NOT replace standard diagnostic endoscopy. The capsule endoscope provides a comprehensive examination of the small bowel, but does not visualize all parts of the esophagus, stomach and colon. Capsule endoscopy complements standard diagnostic endoscopy and is generally performed after standard diagnostic endoscopy evaluation.

What are the risks of capsule endoscopy?

The capsule is made of a specially sealed biocompatible material that is resistant to the GI tract's digestive fluids. Patients have not reported any pain or discomfort from the procedure. In rare cases, capsule retention can occur within the small bowel due

to obstruction or narrowing. Patients with a history of prior gastrointestinal surgery or bowel obstruction are at an increased risk of capsule retention. In this case, surgery may be required for successful removal of the capsule. Patients with implanted electrical devices (e.g., pacemaker) may be placed on a cardiac monitor during the procedure. Patients are not permitted to undergo a Magnetic Resonance Imaging (MRI) scan until the capsule has been eliminated from the body.

What can a patient expect?

Before the capsule examination, patients must strictly follow the pre-procedure instructions. When the patient arrives, sensor leads are attached to the abdomen and a belt, which holds the data recorder, is placed around the waist. The capsule is swallowed with a glass of water.

Patients will stay for a brief observation period, and can then leave the hospital to pursue their regular daily activities. All patients keep a diary for the day, detailing the food and liquids ingested and symptoms they may experience during the recording period. Eight hours after swallowing the capsule, patients will return to have the recording equipment removed. The capsule will be eliminated through a normal bowel movement within two to three days after ingestion. Please contact us to verify the elimination of the capsule, but **DO NOT** retrieve the capsule. The capsule endoscope is a single use device that does not harbor any environmental hazards.

Insurance Coverage

Capsule endoscopy is covered by Medicare, Medi-Cal (Caid) and most private insurance plans. However, in order to avoid unexpected medical expenses, it is best for patients to contact their insurance company prior to treatment to confirm coverage for this service and obtain a prior authorization.



Capsule Endoscopy Pre-procedure Instructions

Five days prior to the procedure:

- STOP taking any iron medications (ferrous sulfate or multi-vitamins with iron).
- Do not eat nuts, seeds, popcorn or corn.

One day before the procedure:

- Do not eat or drink any dairy products (eg., milk, yogurt, ice cream, butter).
- Eat a light breakfast before 8:00 a.m. (i.e. one boiled or poached egg, white toast, no butter, low fiber cereal).
- IT IS IMPORTANT TO DRINK PLENTY OF CLEAR FLUIDS ONLY the remainder of the day (broth, clear beverages, transparent juices, Jell-O, or Popsicles) until 9 p.m..
- Do not have any products that are colored purple or red.
- Nothing to drink after 9 p.m.

Procedure day:

- Drink four 8 oz. glasses of water two hours prior to procedure time.
- Nothing to drink one-hour prior to procedure time.
- Bring your regular medications on the day of procedure.
- Take your necessary medication two hours after receiving the capsule.
- Wear loose clothing.
- Do not apply lotion to abdominal area.

Local Lodging

If you are planning to stay overnight in San Francisco, the Cathedral Hill Hotel is the lodging of choice for California Pacific Medical Center. California Pacific's patients and families receive discounted room rates, including free breakfast and parking. Please confirm the nightly rate at the time of room reservation. There is a city hotel tax that is not included in any estimated rate.

The Cathedral Hill Hotel is conveniently located at:

1101 Van Ness Avenue
San Francisco, CA 94109
(415) 776-8200 or (800) 622-0855
www.cathedralhillhotel.com



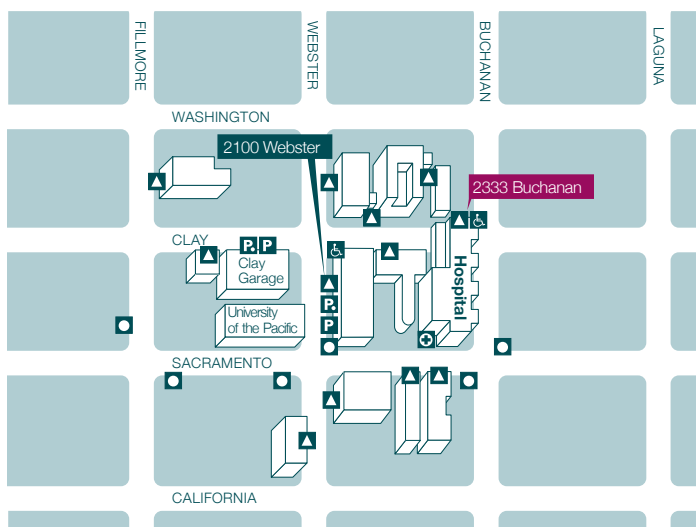
Cathedral Hill Hotel Courtesy Shuttle

California Pacific Medical Center provides free shuttle service to and from the Pacific Campus for our patients and their families staying at the Cathedral Hill Hotel. Service hours are Monday through Friday 8:00 am to 7:00 pm.

Shuttle Service:

- To access the shuttle service call CPMC's Support Center at (415) 600-7900.
- Request a pick up from either the hotel or the medical center.
- A reference number will be given.
- Wait in the lobby for the driver to arrive.
- Please allow approximately 30–45 minutes for shuttle pick up.

Map of California Pacific



California Pacific Medical Center - Pacific Campus
2333 Buchanan Street
San Francisco, CA 94115

Driving directions to California Pacific

Westbound Hwy 80 (from Oakland)

Take Hwy 80 over the Bay Bridge. Take the Ninth Street/Civic Center exit, staying in center exit lane, which puts you on Harrison St. Travel one block on Harrison and turn right onto 9th St. On 9th, get into the left hand lanes labeled "Hayes Street." 9th St. will veer left into Hayes St. as you cross Market St. From Hayes, turn right onto Franklin (after Van Ness Ave.). Continue up Franklin and turn left at California St. (after Bush St.). Right on Buchanan St. Medical Center is at Sacramento & Buchanan Sts.

Southbound Hwy 101 (from Marin)

From the north, go over the Golden Gate Bridge and follow the overhead signs to downtown/Lombard St. exit. Follow Lombard St. east and turn right on Buchanan St. Medical Center is at Sacramento & Buchanan Sts.

Northbound Hwy 101 (from San Jose)

From the south via Hwy 101, take Ninth Street/Civic Center exit. Travel north on 9th St. and get into the left hand lanes labeled "Hayes Street." 9th St. will veer left into Hayes St. as you cross Market St. From Hayes, turn right onto Franklin (after Van Ness St.). Continue up Franklin and turn left at California St. (after Bush St.). Right on Buchanan St. Medical Center is at Sacramento & Buchanan Sts.

Northbound Hwy 280 (from San Jose)

Follow the signs to Golden Gate Bridge. You will be on 19th Ave., which becomes Park Presidio Blvd. as you pass through Golden Gate Park. Turn right on California St. for approximately 2.3 miles. Turn left on Buchanan St. (after Webster St.). Medical Center is at Sacramento & Buchanan Sts.

Parking

If you need assistance, CPMC offers electric cart service from the Clay St. garage to your destination, Monday to Friday, 7:30 am - 5 pm. To request this service, notify the parking lot attendant upon arrival. The cart will meet you at your car in the garage and take you to your destination. For return service please notify the GI lab staff.

Parking lot locations:

- 2405 Clay St.
- 2100 Webster St.

Public transportation:

The 1 California stops outside the Emergency Room entrance. The 22 Fillmore, 3 Jackson and 24 Divisadero all stop within two blocks of the hospital. For connecting routes, call (415) 673-MUNI. For BART connections, call (650) 992-2278.

Wheelchair access:

The entrances at 2333 Buchanan St. and 2100 Webster St. are wheelchair accessible.

Driving directions leaving California Pacific

Eastbound Hwy 80 (to Oakland)

From the Medical Center, travel south on Buchanan St. to Bush St. (4 blocks). Turn left on Bush St. (one-way street). Follow Bush St. to the end (downtown) and turn right on Battery St. and cross Market St. Battery St. becomes 1st St. when you cross Market St. From 1st St, merge onto Hwy 80 toward Bay Bridge/Oakland.

Northbound Hwy 101 (to Marin)

From the Medical Center go north on Buchanan St. to Lombard St. Turn left on Lombard St. and follow the signs to the Golden Gate Bridge.

Southbound Hwy 101 (to San Jose)

From the Medical Center travel south on Buchanan St. to Bush St. (4 blocks). Turn left on Bush St. (one-way street). Turn right on Van Ness Ave. Follow Van Ness Ave. south and cross Market St. Merge onto Hwy 101/Hwy 80 toward Oakland/San Jose. Stay in right-hand lane and follow signs toward San Jose.

Southbound Hwy 280 (to San Jose)

From the Medical Center go south on Buchanan to California St. Turn right on California St. going west to Park Presidio Blvd. Turn left on Park Presidio Blvd., which becomes 19th Ave. as you pass through Golden Gate Park. Follow the signs to the Hwy 280 entrance.

For more information

Please contact the Interventional Endoscopy Service.

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