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# Vacuum extraction

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## Overview

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A vacuum extraction — also called vacuum-assisted delivery — is a procedure sometimes done during the course of vaginal childbirth.

During a vacuum-assisted vaginal delivery, a health care provider applies the vacuum — a soft or rigid cup with a handle and a vacuum pump — to the baby's head to help guide the baby out of the birth canal. This is typically done during a contraction while the mother pushes.

Your health care provider might recommend vacuum extraction during the second stage of labor — when you're pushing — if labor isn't progressing or if the baby's health depends on an immediate delivery.

Although your health care provider may recommend a vacuum extraction to speed up your delivery, there are potential risks, including a risk of injury for both mother and baby. If vacuum extraction fails, a cesarean delivery (C-section) might be needed.

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## Why it's done

A vacuum extraction might be considered if your labor meets certain criteria — your cervix is fully dilated, your membranes have ruptured, and your baby has descended into the birth canal headfirst, but you're not able to push the baby out. A vacuum extraction is only appropriate in a birthing center or hospital where a C-section can be done, if needed.

Your health care provider might recommend vacuum extraction if:

- **You're pushing, but labor isn't progressing.** Labor is considered prolonged if you haven't made progress after a certain period of time.
- **Your baby's heartbeat suggests a problem.** If your health care provider is concerned about changes in your baby's heartbeat and an immediate delivery is necessary, he or she might recommend vacuum-assisted vaginal delivery.
- **You have a health concern.** If you have certain medical conditions — such as narrowing of the heart's aortic valve (aortic valve stenosis) — your health care provider might limit the amount of time you push.

Your health care provider might caution against vacuum extraction if:

- You're less than 34 weeks pregnant
- Your baby has a condition that affects the strength of his or her bones, such as osteogenesis imperfecta, or a bleeding disorder, such as hemophilia
- Your baby's head hasn't yet moved past the midpoint of the birth canal
- The position of your baby's head isn't known
- Your baby's shoulders, arms, buttocks or feet are leading the way through the birth canal
- Your baby might not be able to fit through your pelvis due to his

or her size or the size of your pelvis

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# Risks

A vacuum extraction poses a risk of injury for both mother and baby.

Possible risks to you include:

- Pain in the perineum — the tissue between your vagina and your anus — after delivery
- Lower genital tract tears
- Short-term difficulty urinating or emptying the bladder
- Short-term or long-term urinary or fecal incontinence (involuntary urination or defecation)

Note that most of these risks are also associated with an unassisted vaginal delivery.

Your health care provider may also have to perform an episiotomy — an incision of the tissue between the vagina and anus — before placing the vacuum.

Possible risks to your baby include:

- Scalp wounds
- A higher risk of getting the baby's shoulder stuck after the head has been delivered (shoulder dystocia)
- Skull fracture
- Bleeding within the skull

Serious infant injuries after a vacuum extraction are rare.

# How you prepare

Before your health care provider considers a vacuum extraction, he or she might try other ways to encourage labor to progress. For example, he or she might adjust your anesthesia to encourage more-effective pushing. To stimulate stronger contractions, another option might be intravenous medication — typically a synthetic version of the hormone oxytocin (Pitocin). Your health care provider might also make an incision in the tissue between your vagina and anus (episiotomy) to help ease the delivery of your baby.

If vacuum extraction seems to be the best option, your health care provider will explain the risks and benefits of the procedure and ask for your consent. You might also ask about alternatives, usually a C-section.

## What you can expect

### During the procedure

During a vacuum extraction, you'll lie on your back with your legs spread apart. You might be asked to grip handles on each side of the delivery table to brace yourself while pushing.

Your health care provider will insert the vacuum cup into your vagina, place the cup against the baby's head, and check to make sure no vaginal tissues are trapped between the cup and the baby's head. Then your health care provider will use the vacuum pump to create suction.

During the next contraction, your health care provider will rapidly increase the vacuum suction pressure, grasp the cup's handle and try to guide the baby through the birth canal while you push. Between contractions, your health care provider might maintain or reduce the suction pressure.

After your baby's head is delivered, your health care provider will release the suction and remove the cup.

Vacuum extractions aren't always successful. If your health care provider is unable to safely deliver your baby with assistance from a vacuum, a cesarean delivery will be recommended.

### After the procedure

After delivery, your health care provider will examine you for any injuries that might have been caused by the vacuum. Any tears will be repaired. If an episiotomy was performed, it will be repaired as well.

Your baby will also be monitored for signs of complications that can be caused by a vacuum extraction.

## When you go home

If you had an episiotomy or a vaginal tear during delivery, the wound might hurt for a few weeks. Extensive tears might take longer to heal.

While you're healing, expect the discomfort to progressively improve. Contact your health care provider if the pain gets worse, you develop a fever, or you notice signs of an infection.

If you're unable to control your bowel movements (fecal incontinence), consult your health care provider.

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