

Patient information from the BMJ Group

Childbirth, heavy bleeding

In this section

[What is it?](#)

[What are the symptoms?](#)

[How is it diagnosed?](#)

[How common is it?](#)

[What treatments work?](#)

[What will happen?](#)

[Questions to ask](#)

Childbirth, heavy bleeding

Doctors say you have heavy bleeding after childbirth if you lose half a litre (about a pint) or more of blood. Most women in the UK don't bleed heavily after childbirth, but it can occasionally happen. There are treatments that can help prevent heavy bleeding during labour or straight after your baby is born.

We've brought together the best research on preventing heavy bleeding after childbirth. You can use our information to talk to your doctor and decide which treatments are best for you.

What is heavy bleeding after childbirth?

It's normal to have some bleeding when you give birth. But if you lose half a litre (about a pint) or more of blood, it means your bleeding is heavy.

Doctors call heavy bleeding after childbirth **postpartum haemorrhage**. If you lose about one litre (about two pints) or more of blood after childbirth, then you have severe postpartum haemorrhage. ^[1]

It can be difficult for doctors to tell exactly how much blood you lose after you have a baby. But your doctor or midwife will monitor you carefully after your baby is born to check that you're not losing too much blood. They will look at how much you are bleeding, and check your **blood pressure**, **pulse**, and general health. These things will help them decide if you're losing too much blood and need treatment.

Heavy bleeding (haemorrhage) can happen during the first 24 hours after you give birth or up to six weeks later.

- If you get heavy bleeding within 24 hours of giving birth, it's called **primary postpartum haemorrhage**.
- If you get heavy bleeding after the first 24 hours and up to six weeks later, it's called **secondary postpartum haemorrhage**. If you are at home and think you're bleeding heavily and you feel dizzy and weak, call your doctor straight away. You may need treatment.

Bleeding heavily after having a baby is a problem because:

Childbirth, heavy bleeding

- It can lead to **anaemia** (when you have a low number of **red blood cells** in your body)
- You may need a **blood transfusion**
- You can die. But this is rare.

Most women who bleed heavily after they've had a baby do so because their womb (uterus) doesn't shrink (contract) properly. Doctors call this **uterine atony**. As your womb contracts and separates from your **placenta** (afterbirth), the blood vessels in your womb close up. If some of the placenta doesn't come away completely, the womb can't contract properly and the blood vessels will continue bleeding. The treatments we talk about here are given to help the womb shrink after childbirth. (See [What treatments work to prevent heavy bleeding after childbirth?](#))

Other problems that also can cause heavy bleeding after childbirth are: ^[2]

- Bits of the placenta getting stuck in your womb after delivery, instead of coming out
- Cuts or tears around your vagina or **cervix** (the opening of the womb) during delivery
- A hole or tear in your womb
- Your blood not clotting normally.

Heavy bleeding after childbirth: why me?

Certain things make it more likely that you'll get heavy bleeding after childbirth. These are called **risk factors**. Having a risk factor doesn't mean you'll bleed heavily for certain. And women without the risk factors can still have problems. But if you have a risk factor, you have a greater chance of having heavy bleeding than a woman who doesn't have any risk factors.

Some risk factors for heavy bleeding after childbirth are: ^{[1] [2] [3] [4]}



Being in labour for a long time can make you more likely to have heavy bleeding.

- Having a **general anaesthetic** (a medicine to make you sleep through the delivery)
- Having heavy bleeding after a previous birth

Childbirth, heavy bleeding

- Having **anaemia** when you go into labour
- Being very overweight (obese)
- Bleeding during your pregnancy (after 24 weeks)
- Having a low-lying placenta
- Being over 35
- Having twins
- Having a large baby
- Having a condition in which you have extra fluid in your womb (uterus) during pregnancy (called polyhydramnios)
- Being in labour for a long time (more than 12 hours)
- Being in the third stage of labour for a long time (more than 30 minutes). The third stage of labour is the time between when your baby is born and when you deliver the placenta (afterbirth)
- Having a drug called oxytocin to start your labour and make your contractions stronger
- Having had many pregnancies (more than four)
- Having a womb that didn't shrink properly after a previous pregnancy
- Having pre-eclampsia. Pre-eclampsia is a condition where you have **high blood pressure**, swelling, and **protein** in your urine during pregnancy. To learn more, see our information on [Pre-eclampsia](#)
- Being in labour for the first time
- Having a cut to make your vagina wider during childbirth (these cuts are called episiotomies). To learn more, see our information on [Childbirth, tear or cut](#)
- Having your baby delivered with the help of instruments (such as a vacuum pump or forceps).

Some women might worry that they are more likely to have heavy bleeding if they have a home birth. This is not true. If you have had no problems with your pregnancy you are no more likely to have heavy bleeding if you give birth at home with the help of a midwife. ^[5]

How common is heavy bleeding after childbirth?

Your chances of having heavy bleeding after childbirth depend on where you live. It's less likely to happen in developed countries than in poorer countries.

There hasn't been much good-quality research to show how many women in developed countries have heavy bleeding after giving birth. Research from the US has found that about 1 in 25 women who deliver their baby through their vagina have heavy bleeding afterwards. ^[1] This is probably true for women in other developed countries, but we can't say for certain.

It's more common for women to have heavy bleeding in poorer countries. When women from around the world were included in studies, researchers found that about 1 in 10 have heavy bleeding after delivery. ^[6]

In poor countries, women may have many children, or they may not get a lot of care during and after childbirth. These things may make them more likely to bleed heavily after their baby is born.

What treatments work to prevent heavy bleeding after childbirth?

Most women in the UK don't bleed heavily after childbirth, but occasionally it does happen. Doctors have found that some treatments may help to prevent this.

Key points about preventing heavy bleeding after childbirth

- Your doctor or midwife can take steps to prevent heavy bleeding in the time between when your baby is born and when you deliver the placenta (afterbirth). This is called managing the third stage of labour. Research has found it works. Your doctor or midwife can put a clamp on the umbilical cord, drain the blood out of it, pull gently on the cord, and give you an injection to help your womb (uterus) shrink. Or you might just get an injection on its own.
- Most women who have a baby by vaginal delivery will have their third stage of labour actively managed. That's because it's hard to predict who will have problems, and the active management has to be done before the heavy bleeding happens. The third stage of labour is the time between when your baby is born and when you deliver the placenta (afterbirth).
- But some women may decide they want the third stage of labour to be natural with no extra treatments.
- Massaging your uterus (womb) after you give birth may help it to shrink.
- Breastfeeding straight after you deliver doesn't seem to help prevent heavy bleeding. But it's good for you and your baby in other ways.

Childbirth, heavy bleeding

Which treatments work best? We've looked at the best research and given a rating for each treatment according to how well it works.

Treatment Group 1

Treatments to prevent heavy bleeding after childbirth

Treatments that work

- [Active management of the third stage of labour](#)

Treatments that need further study

- [Breastfeeding straight after childbirth](#)
- [Massaging your womb \(uterus\)](#)

What will happen to me?

What will happen to you if you bleed heavily after having a baby depends partly on whether you have certain [risk factors](#), such as being [anaemic](#) (not having enough [red blood cells](#)). It also depends on how healthy you were before you went into labour.

In the UK most women can lose between half a litre and a litre of blood (one to two pints) and still recover well. It's rare to die in childbirth. And safe [blood transfusion](#) is also available if you need it.

But women in poor countries tend not to be as healthy. They are also more likely to be anaemic. Women who are anaemic when they deliver their baby may not recover well if they lose a lot of blood. Around the world, about a quarter of all women who die in childbirth die from heavy bleeding.^[7]

Heavy bleeding can happen during the first 24 hours after you give birth or up to six weeks later. If you've been bleeding, you should tell your doctor or midwife. It's especially important that you tell someone if:^[8]

- You feel faint
- You feel dizzy
- You feel your heart beating quickly or irregularly.

Heavy bleeding can sometimes lead to other complications:^[9]

- You may go into shock. This is when you lose more blood than your body can take. Some symptoms of shock are pale and cool hands or feet; a rapid heartbeat; shallow rapid breathing; and feeling very tired, dizzy, or confused

Childbirth, heavy bleeding

- You may need a blood transfusion
- You may need surgery, such as scraping out the inside of your womb (uterus), to help stop the bleeding. The operation is called dilatation and curettage (D and C)
- There may be problems with the way your kidneys work
- There's a small chance you may need to have a hysterectomy (an operation to remove your womb).

If you're having heavy bleeding and your placenta (afterbirth) hasn't come out on its own, you may need to have it taken out. This is called manual removal of the placenta. It's done as a small operation under a general anaesthetic, so you'll be asleep.

A few women who bleed heavily after childbirth get a condition called Sheehan's syndrome. This is when you stop making certain hormones, such as thyroid hormones, oestrogen, and progesterone. One symptom of Sheehan's syndrome is not having milk in your breasts after your baby is born. Other symptoms include tiredness, hair loss, and not having periods. You'll need to take replacement hormones for the rest of your life if you get Sheehan's syndrome.

Research suggests that having heavy bleeding after giving birth doesn't cause problems getting pregnant in the future, and doesn't make women more likely to have bleeding if they have another baby. But women who have heavy bleeding after giving birth by caesarean may have a slightly reduced chance of becoming pregnant again. ^[10]

Treatments:

Active management of the third stage of labour

In this section

The third stage of labour is the time from when you deliver your baby to when you deliver the placenta (afterbirth).

There is good research to show that women who have their third stage of labour actively managed have a smaller chance of heavy bleeding. ^[11] Active management can sometimes cause minor side effects. But women who've had active management seem more happy with how they've been looked after than women who've not had this treatment. ^[12]

During active management of the third stage of labour, your doctor or midwife may do some or all of the following things: ^[1] ^[3]

- Put a clamp on the umbilical cord and cut it early
- Drain blood out of the umbilical cord

Childbirth, heavy bleeding

- Gently pull on the umbilical cord. To learn more, see [Having your umbilical cord gently pulled](#)
- Give you an injection to shrink your womb (uterus). The injection is normally given into a muscle, usually as the baby is coming out. To learn more, see [Drugs used to prevent heavy bleeding in childbirth](#) .

One summary of five good-quality studies (called **randomised controlled trials**) found:
[12]

- 5 in 100 women who had active management of labour got heavy bleeding
- 14 in 100 women who didn't have this treatment or who only had an injection of a medicine got heavy bleeding.

However, studies suggest that clamping the umbilical cord early on probably doesn't make much difference. [13]

Women who had their third stage of labour actively managed had other benefits too:

- They lost less blood on average
- They were less likely to need a **blood transfusion**
- They needed fewer iron tablets after childbirth (iron tablets are often used to treatment **anaemia** , which can happen if you bleed heavily).

Also, they delivered their placenta in a shorter time. Once your placenta has come out, your womb (uterus) shrinks and the blood vessels inside it close up. This stops bleeding from your womb. The longer it takes for your placenta to be delivered, the greater the chance of haemorrhage.

In these studies, doctors used injections of oxytocin (brand name Syntocinon) or a drug called ergometrine, or a medicine that has oxytocin and ergometrine in it together (Syntometrine).

Women who had active management of labour were about twice as likely to get side effects such as nausea, vomiting, and headache.

But in one of the studies, women who had active management were more likely to be happy with their third stage of labour, compared with the women who had no treatment.

Massaging your womb (uterus)

In this section

Childbirth, heavy bleeding

Your doctor or midwife can massage your womb (uterus) after delivery. They do this by massaging your abdomen (tummy). Doctors think that this can help your womb to shrink after you've given birth.

Massaging the womb is recommended as a treatment for women to prevent heavy bleeding after giving birth.^[3] But it's not clear whether it works.^[32]

One review looked at the results of two studies. One of the studies found that uterine massage every 10 minutes for an hour reduced bleeding. The other study, which was much bigger, found that it made no difference.^[32] We really need more good-quality studies before we can say for sure whether this treatment works.

Doctors don't think that massaging your womb does any harm, although it can be uncomfortable.

Breastfeeding straight after childbirth

In this section

When you breastfeed or massage your nipples, a part of your brain called the pituitary gland releases a hormone called oxytocin. Oxytocin helps your womb (uterus) to shrink and also helps you to breastfeed.

One study, which looked at about 4,000 women, found that breastfeeding straight after giving birth didn't help prevent heavy bleeding.^[33] But breastfeeding is good for you and your baby in other ways. For example, breast milk contains antibodies, which help your baby fight off infections.

Further informations:

Having your umbilical cord gently pulled

Your womb (uterus) starts to shrink (contract) straight after your baby is born. Pulling the umbilical cord may help this process along. Your doctor or midwife can either pull on the cord continuously or pull on it every few minutes.

If you have [active management of the third stage of labour](#), one of the things your doctor or midwife may do is gently pull on the umbilical cord.^[3]

Studies disagree on whether having the umbilical cord gently pulled can reduce the chance of heavy bleeding after giving birth. Some studies have found that it can help^[14] while others found that it made no difference.^{[15] [16]}

But studies found that women who had the umbilical cord gently pulled:

- were less likely to have bits of their placenta (afterbirth) stuck in the womb

Childbirth, heavy bleeding

- were more likely to have a shorter third stage of labour
- had less pain in the third stage of labour.

But one study found that women who had their cord gently pulled were just as likely as those who didn't to have the following problems:^[17]

- Anaemia (when you don't have enough red blood cells in your body) after delivery
- Needing a blood transfusion
- Needing their placenta removed by hand.

Drugs used to prevent heavy bleeding in childbirth

All the drugs below help your womb (uterus) shrink after you've given birth. As the womb (uterus) shrinks, the blood vessels inside close off and stop bleeding. This helps prevent heavy bleeding (haemorrhage).

You might be given one or more of these drugs, along with other treatments to help prevent heavy bleeding (this is called [active management of the third stage of labour](#)). Or you might be given an injection on its own. Here we look at the research on how well drugs used to prevent heavy bleeding in childbirth work and whether they have side effects.

Oxytocin

Oxytocin is a hormone that your body normally releases into your blood during and after labour. But your doctor or midwife can also give you an injection of oxytocin (brand name Syntocinon).

This is the drug treatment that is recommended in guidelines to doctors to prevent heavy bleeding after childbirth.^[3]

There is good research showing that an injection of oxytocin reduces a woman's risk of bleeding heavily after childbirth.^[18]

An injection of oxytocin works slightly better when combined with another drug called ergometrine, but it has fewer side effects if it's used on its own.^[19]

If you already have a tube in a vein in your arm (called an IV or intravenous line), oxytocin can be given as an injection through this tube (called a drip or an intravenous infusion). Otherwise, it can be given as an injection into a muscle.

Childbirth, heavy bleeding

One summary of the research (a systematic review) included seven good-quality studies with a total of more than 3,000 women. It found that:^[18]

- 12 in 100 women who were given an injection of oxytocin had heavy bleeding
- 24 in 100 women who were given a dummy treatment (a placebo) or no treatment had heavy bleeding.

Oxytocin injections worked as well as injections of other drugs called ergot alkaloids.^[18]
^[19] But oxytocin causes fewer side effects.

Another study found that women given oxytocin were less likely to be anaemic after they'd given birth than women who didn't have this treatment.^[20] (If you are anaemic, you have a low number of red blood cells in your body. This can happen if you bleed heavily.)

There's a chance you could get high blood pressure after an injection of oxytocin. In the summary of the research we found, this happened to between 8 in 100 and 15 in 100 women.^[18]

Ergot alkaloids

Ergot alkaloids are a group of drugs used for heavy bleeding. In the UK, the one normally used is ergometrine. It can be given as an injection or a tablet. But ergometrine is usually given as an injections combined with another drug called oxytocin (the brand name for the combination is Syntometrine).

One summary (a systematic review) of six good-quality studies included nearly 4,000 women.^[21] It found that injections of ergot alkaloids helped to reduce blood loss. But tablets didn't work.

Some studies have shown that these drugs work as well as oxytocin injections at preventing heavy bleeding after childbirth.^[18] ^[19] But they can give you more side effects.
^[19]

About 1 in 10 women who take ergometrine feel sick.^[19] This doesn't seem to be a problem with oxytocin. Ergot alkaloids may also cause your blood pressure to go up. This may lead to pain after giving birth.^[21] You should not have this drug if you have high blood pressure (including a condition called eclampsia).^[22]

There's also a slightly higher risk that you will need a small operation to remove your placenta, or part of your placenta.^[18] If your placenta (or parts of it) stays in your womb (uterus), then you might be more likely to have heavy bleeding.

Childbirth, heavy bleeding

Oxytocin plus ergometrine

You can get an injection that contains both oxytocin and ergometrine. The brand name for this combination is Syntometrine.

The two drugs together may work a little better than oxytocin or ergometrine alone, although if you take both drugs you can get more side effects.

One summary of six studies (called a systematic review) found that women who were given the combination injection had less chance of heavy bleeding after delivery than women who were given just oxytocin. ^[23] ^[24]

But women who got the combination of oxytocin and ergometrine had a higher chance of getting side effects such as: ^[23]

- High blood pressure
- Vomiting
- Feeling sick.

Another summary of the research found that taking a combination of oxytocin plus ergometrine worked the same as taking an ergot alkaloid drug by itself. ^[18]

Carboprost

Carboprost is a drug that is similar to chemicals made by your body that help tighten the muscles in your womb (uterus). Your midwife or doctor might give you an injection of carboprost (brand name Hemabate) if you're bleeding heavily after giving birth and injections of oxytocin and ergotamine haven't helped. ^[22]

Carboprost works about as well as ergot alkaloids to prevent heavy bleeding, but it has more side effects. ^[25] ^[26] ^[27] ^[28] ^[29] ^[30]

The main side effects are:

- Abdominal (tummy) pain
- Vomiting
- Diarrhoea .

Other drugs

Doctors have tried other drugs to prevent heavy bleeding after childbirth. They are called prostaglandin analogues. They include dinoprostone (brand names include Propess and

Childbirth, heavy bleeding

Prostin E2) and sulprostone. Sulprostone is not available in the UK. Dinoprostone is normally used to start labour. ^[22]

But there hasn't been enough research to show whether these drugs work to prevent heavy bleeding. In some studies, sulprostone has been found to cause heart problems. ^[9] More research is needed on both sulprostone and dinoprostone before we know whether they help to reduce the risk of bleeding after giving birth.

Some research has looked at a drug called tranexamic acid, which is more often used to treat heavy periods. Results so far suggest it can work to prevent heavy bleeding after childbirth, but the studies are not big enough or good-quality enough to be sure. ^[31]

Glossary:

blood pressure

Blood pressure is the amount of force that's exerted by your blood on to your blood vessels. You can think of it like the water pressure in your home: the more pressure you have, the faster and more forcefully the water flows out of the shower. Blood pressure is measured in millimetres of mercury (written as mm Hg). When your blood pressure is taken, the measurement is given as two numbers, for example 120/80 mm Hg. The first, higher, number is called the systolic pressure, and the second, lower, number is the diastolic pressure. The systolic number is the highest pressure that occurs while your heart is pushing blood into your arteries. The diastolic number is the lowest pressure that happens when your heart is relaxing and is not pushing your blood.

pulse rate

Your pulse rate is the number of times that your heart beats in one minute. A normal rate is between 60 and 100 beats per minute, but the heart can speed up under certain circumstances, such as when you exert yourself or when you have an infection.

haemorrhage

Haemorrhage is a word doctors use for bleeding. Any time blood escapes from a vessel, it's called a haemorrhage.

anaemia

Anaemia is when you have too few red blood cells. Anaemia can make you get tired and breathless easily. It can also make you look pale. Anaemia can be caused by a number of different things, including problems with your diet, blood loss and some diseases.

red blood cells

Red blood cells are the part of your blood that makes it red. Their main job is to carry oxygen from your heart and lungs to the tissues of your body. Once these cells unload oxygen, they pick up carbon dioxide. They take carbon dioxide back to your lungs so it can be breathed out of your body.

blood transfusion

If you've lost too much blood from your body, you may need a blood transfusion to replace it. People with diseases of their blood, like sickle cell anaemia, sometimes need blood transfusions to replace blood that doesn't work properly.

placenta

The placenta is an organ that grows in the womb during pregnancy. It joins the woman to the growing baby. The placenta provides the baby with oxygen, water and nutrients from the mother's blood. It also produces the hormones that are involved in pregnancy.

cervix

The cervix is a piece of tissue that sits between a woman's womb and her vagina. It has a small opening in it that gets much bigger when a woman is having a baby.

general anaesthetic

You may have a type of medicine called a general anaesthetic when you have surgery. It is given to make you unconscious so you don't feel pain when you have surgery.

high blood pressure

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

proteins

Childbirth, heavy bleeding

A lot of your body's tissues are made out of proteins. Proteins can be made in your cells. Proteins are also part of the food you eat, particularly meat and dairy products. Your body breaks down the protein you eat into amino acids. Your cells then use these amino acids to build new proteins, which make up muscles, joints, hair and other parts of your body.

kidney

Your kidneys are organs that filter your blood to make urine. You have two kidneys, on either side of your body. They are underneath your ribcage, near your back.

hysterectomy

A hysterectomy is an operation to take out a woman's womb (also called her uterus). Sometimes the ovaries and fallopian tubes are removed as well.

hormones

Hormones are chemicals that are made in certain parts of the body. They travel through the bloodstream and have an effect on other parts of the body. For example, the female sex hormone oestrogen is made in a woman's ovaries. Oestrogen has many different effects on a woman's body. It makes the breasts grow at puberty and helps control periods. It is also needed to get pregnant.

thyroid gland

Your thyroid gland is a small organ that sits in your neck, just in front of your windpipe. It sends out a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

oestrogen

Oestrogen is the name given to three female sex hormones: oestradiol, oestrone and oestriol. Oestrogen causes women's sexual development during puberty: it is needed to develop breasts, have periods and get pregnant. Oestrogen is also thought to affect women's health in other ways. It may influence their mood, cholesterol levels and how their bones grow. Men have very low levels of oestrogen in their bodies, but doctors aren't completely sure what it does. Oestrogen is an important ingredient in most types of contraceptive pill and hormone replacement therapy.

progesterone

Progesterone is a hormone that plays a part in a woman's menstrual cycle and in pregnancy. A form of this hormone made in the laboratory, called progestogen, is often added to contraceptive pills and hormone replacement therapy (HRT).

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

veins

Veins are blood vessels that carry blood back to your heart after your blood has delivered oxygen and food to the tissues.

intravenous infusion

When a medicine or a fluid, such as blood, is fed directly into a vein, it's called an intravenous infusion (or IV). To give you an intravenous infusion, a nurse, technician or a doctor places a narrow plastic tube into a vein (usually in your arm) using a needle. The needle is then removed and the fluid is infused (or dripped) through the tube into the vein.

systematic reviews

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

antibodies

Antibodies are an important part of your immune system. They are proteins made by white blood cells (another part of your immune system). They help destroy bacteria and other agents that cause infections.

infection

Childbirth, heavy bleeding

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

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