What is hydroxyurea?

Hydroxyurea is a medicine that can help children and adults with sickle cell disease feel better.

Does it make people feel better?

Hydroxyurea, taken once a day, has been found to:

- Decrease pain
- Decreases the need for blood transfusions
- Decreases the number of trips to the hospital
- Decreases damage to the brain, lungs, kidneys, and spleen
- Decrease episodes of "acute chest"
  - » Acute chest syndrome is a complication of sickle cell disease when the sickle-shaped cells clump in the lungs. This lowers the amount of oxygen in the blood and can be life-threatening.
  - » Sadly, "acute chest syndrome" is the most common reason some people pass from Sickle Cell Disease.

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UR Medicine Complex Care Center
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UR MEDICINE
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Hydroxyurea

The best medicine for sickle cell disease.

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How does it work?

Hydroxyurea helps the red blood cells stay round and flexible so that they can travel around the body without clumping up and causing you pain.

It works by helping your body make a healthy type of hemoglobin, HgF, or "fetal hemoglobin" and less of the type of hemoglobin, HgS, or "sickled hemoglobin" that causes a lot of pain.

- Hemoglobin is a part of our blood that helps oxygen get around the body.
- It's called "fetal" because we are all born with it as babies – helps keep blood cells from sickling.
- We have a lot of HgF when we're first born, but then it decreases. That's why babies who have sickle cell disease don't go into sickle cell crisis when they're very little.

When more of our cells are round and not sickled, the blood can travel around the body better and with more oxygen so people with sickle cell disease feel much better.

Is hydroxyurea safe?

Hydroxyurea has been approved for treatment of sickle cell disease by the US Food and Drug Administration (FDA).

Any medication can be dangerous if it is taken carelessly. To get the best effect, it is very important that it is taken every day.

Hydroxurea has been used to treat sickle cell disease for over 25 years. It has been around for almost 150 years - it was used to treat other conditions long before it was discovered to help with sickle cell disease.

You will need to sign a form that states that you understand why you are taking hydroxyurea,

It is important to get your blood tested periodically to make sure the medicine is working and that you are taking the right amount, but not too much.

Will this medicine cure me of sickle cell disease?

While hydroxyurea is not a cure, when taken regularly, it has a very positive impact on your quality of life.

It is important to be patient. It can take a few months to make you feel better.

How do I take it?

You take it once a day. It comes in a pill or a liquid.

If you are admitted to the hospital, remind your doctors that you need to continue your hydroxyurea.

The nurse will probably wear gloves to give you hydroxyurea in the hospital. This is just standard procedure. (Remember—there are a lot things people wear gloves to do in the hospital that you wouldn't wear gloves to do at home.)

Remember:
You are the most important person on the team, so it is really important that you stick to the plan that you made with your health care providers!

The bottom line -

- Hydroxyurea is the best medicine for sickle cell disease.
- Proven to save lives.
- Proven to prevent pain and long-term complications.
- Hydroxyurea must be monitored to be sure your dose is right.