Presenter: Cancer kills more than half a million Americans every year but there is hope tonight that an experimental new treatment could bring those numbers down. The idea is to train the body's immune system to fight the disease and if it works, it might be a way to prevent it. Dr John LaPook now with a woman who's getting the new treatment.

Karen: John, you said you wanted coffee, you want coffee.

LaPook: Four months ago, 47-year-old Karen Gentile was diagnosed with breast cancer. This Pennsylvania mother of two faced the biggest decision of her life whether to delay surgery and try an experimental vaccine.

Karen: I wish I had a crystal ball to figure out the best route to go, so that you don't have a recurrence. My husband kept saying if you don't do this you're cutting yourself short. You know I have to go down to the hospital.

LaPook: Gentile had an early form of breast cancer called DCIS (ductal carcinoma in situ). DCIS is confined to the milk ducts but her type is aggressive and likely to recur. The therapy could lead to a cure but signing the consent form with its list of risks scared her.

Karen: I just kept thinking, you know, what if something bad happened down the road. All those emotions and thoughts were going through my mind for many weeks as I was trying to decide what to do.

LaPook: Gentile was one of the first women in the world to get a DCIS breast cancer vaccine. Her husband John joined her when she went for the painful shot. Her hope the vaccine may not only treat cancer but one day stop it from occurring in the first place.

Karen: I hope so, I hope it does come to that, there's a vaccine you know that people can be vaccinated against breast cancer, and they will never have to hopefully make some of these decisions.

LaPook: Here is the theory: the immune system often doesn't attack deadly cancer cells because they look so similar to normal tissue, they're basically invisible. To make the vaccine white blood cells are taken from a patient and engineered to recognize breast cancer proteins. Once injected into the patient these cells help the immune system identify and attack the tumor.

Dr Czerniecki: It may change the way we think about and treat DCIS.

LaPook: University of Pennsylvania researcher Doctor Brian Czerniecki is leading this first ever DCIS vaccine study.

When you first looked out at the microscope and you saw the immune system was actually destroying those cancer cells, what did that seem like to you?

Dr Czerniecki: It's one of those Aaahhh moments when you look at it and you say Woahhh this is really doing what we thought it was gonna do.

LaPook: The hope is to teach the immune system to stand guard against a recurrence. In a way these immune cells act as watchdogs?
Dr Czerniecki: They're watchdogs for the body and they will protect anywhere they see a problem with the cancer proteins coming back.

LaPook: Next month Karen Gentile will have the standard breast cancer surgery she postponed and will find out if the vaccine is starting to work. She has no regrets about taking some risks for a dream.

Karen: That I am cancer free and I won't have a reoccurrence and I won't have to do this ever again.

LaPook: We need to temper this by saying we've seen a good number of cancer vaccine failures but the hope is using these vaccines a lot earlier will lead to more successful results. Now more than 200 cancer vaccine trials are underway in brain, lung, and pancreatic cancers, those Scott that have been the hardest to treat.

Presenter: John, thank you very much.

CBSnews.

Lexical helpline:
Bring down = reduce
Figure out = understand, identify
Cut oneself short = abréger, écourter (sa vie)
The milk ducts = canaux galactophores
Make a decision = prendre une décision
Stand guard = monter la garde
A watchdog = un chien de garde
Postpone = reporter, différer
Temper = tempérer, modérer

Translation.
1. Un carcinome canalaire in situ se développe dans les canaux galactophores.
2. Grâce à ce vaccin, on apprend aux leucocytes à identifier et détruire les cellules cancéreuses.
3. Il existe plus de 200 essais cliniques en cours sur les vaccins anti-cancer, mais le nombre d'échecs est très élevé.
4. La patiente a choisi de différer l'opération pour essayer un nouveau traitement.
5. C'est une décision difficile à prendre mais ça vaut le coup de prendre ce risque.
1. DCIS develops in the milk ducts.
2. Tumors to this vaccine where body cells are capable to destroy and destroy cancer cells.
3. More than 200 cancer vaccines are under way, but the number of failures is high.
4. The patient chooses to postpone surgery in order to try a new treatment.
5. It is a difficult decision to make but it is worth taking the task.