

The Truth About Cancer

This is how it works.

Your body, like Steve's body, is made up of cells.

These cells do different things. Nerve cells let electrical impulses pass down them, the cone cells in the eye detect coloured light, skin cells keep the rain out and hair cells keep hairdressers and barbers in business.

But then suddenly, one of these cells changes.

There are usually three things that can cause this.

It could be that it's a genetic thing; that the cell has inherited some sort of defect and eventually that defect kicks in. It could be something chemical; that the cell has come into contact with a substance that has caused a chemical reaction that has caused it to change. It could be something to do with radioactivity; some nasty radiation could have hit the cell causing it to change its function.

And that's the problem. The cell hasn't really changed but what it does is different. It's still one of the cells of your body, but it just doesn't work in the same way. A liver cell no longer filters the blood, a lung cell no longer allows oxygen to pass one way through it and carbon dioxide the other and a skin cell no longer keeps the rain out.

But they're still your cells.

It's not like they're part of some nasty infection. When you get one of those it's because invading cells are coming in from the outside. Your body can detect these alien cells and mobilise forces against them. If that's not enough, modern medicine can add to those forces using antibiotics.

But this is not the case here. These are still your cells, not invading marauders. So your body looks after them. It provides them with food and oxygen, just like it would any of your other cells.

And most of the time, this is not a problem. It becomes a problem if these new cancer cells are more successful than the cells they started out as. The most common advantage is that they reproduce faster, so that as the original cells die off they have more chance of being replaced by the cancer cells.

So, what starts to happen now is that the cancer cells start to replace the original cells. Unfortunately they don't do the same job as the original cells and so what is effectively happening is that we are going to end up with an organ, a lung or pancreas, that doesn't do what it is supposed to do (what does a pancreas do?). Things then start to get worse.

The cancer cells start to spread around the body. They're usually carried by the blood stream but sometimes they can be carried the lymph system, the bodies sort of sewage disposal system. When they get to other organs they can start to replace hard working cells all over the body.

Sometime around now, one of the important organs finds there aren't enough working cells to continue doing what it is supposed to be doing, and it gives up.

If you're not dead by this time, you're pretty ill at least.

So how are we going to stop this?

Well, first, we're going to try to make sure it doesn't happen in the first place.

We can avoid things that might make it happen. Keep out of the way of radiation such as ultra violet light, x-ray machines or fall-out from nuclear weapons.

Try and avoid the chemicals that can cause cancers. Avoid cigarettes, foods full of chemicals or snorting cleaning products.

None of this is going to guarantee that you're going to avoid cancer completely so the next step is to make sure that you're in the best position to fight the illness. Start with general healthy living, nothing to excess, a little light exercise and a good diet.

If none of this has worked then the next thing is to make sure we get hold of the cancer as soon as possible. Keep an eye out for unexpected lumps, the testicles and breasts are particularly easy to check. When you're feeling ill get yourself to the doctors and let him or her check you out.

Providing, you get to it early enough, you can just cut the piece of cancer out and although it might leave a bit of a hole, that should be about it.

The problem comes when the cancer cells have started to move around the body. Now they're all over the shop and we can't just go in and cut it out, not without leaving plenty of holes.

Now we've got to concentrate on killing the cancer cells themselves, but this isn't easy. Remember cancer cells are just *your* cells. Anything that's likely to kill them is likely to kill you. So we have to look at how these cells are different from the rest of your cells. They might not be as strong as the original cells, they might be more susceptible to radiation or chemicals. One way to spot the difference is that cancer cells might be faster growing than the normal cells, so what we do is wipe out *all* fast reproducing cells. Ever wondered why chemotherapy sends people bald? Hair is fast growing cells and gets wiped out with all the others..

And if that doesn't work?

There's not a lot they can do once the cancer has taken over an organ. There might be a chance of a transplant, but to be fair, someone with a better chance at longevity or a better quality of life is probably more deserving of the spare organ. Those Christmas cards you bought in the New Years Sales aren't quite the bargain they seemed. You're not going to get to send them.