Hi. Today, I want to talk to you for a few minutes about ambulances. Interesting topic. Don't forget, as always, if you click on the link below here, after you finish watching this, you can go to my homepage and you can find the script for this talk. You can also find questions, multiple-choice, and essay type, and you can find answers and sample answers. You can also download the MP3 and listen to this talk whenever you want, if you want.

OK, right. Let's begin. So, we're going to talk about ambulance's today. Many different countries have many different types of ambulances, slightly different shapes, depending on where you come from, but the general principle of ambulances is pretty much the same anywhere you go. We'll talk about that in a minute.

So, first, etymology. Where does the word "ambulance" come from? Well, "ambulance" comes from the French, which originally came from the Latin, "ambulante". And "ambulante" means walking. So, basically, an ambulance means walking to the hospital or walking somewhere to get fixed. Generally, ambulances used to be pulled by horses, which is where the walking comes from. These days, you don't have to walk to the hospital, I hope. Ok, the word "ambulance". Of course, Google is amazing, by the way. If you Google things like this, you can find the usage of a word over time. And as you can see, the word "ambulance" takes off in about 1850 and slowly increases. Why? Well, because you can see the historical inventions through here. 1850 is about when ambulances started. Then there's a lump in the First World War. There's a lump in the Second World War. And then we rise up to the current usage of the word "ambulance". With any word like this, you can Google the word and you can find how the word is attached to the history. It's very, very interesting. You should try it later.

OK, let's have a look at the history of ambulances. So, this is the very first kind of ambulance. Basically, you were put on a wooden cart and you were dragged to a hospital or somewhere where you could be helped. The hospitals weren't very advanced back there, of course. Now, when would you need this? Most people would need these after a battle in a fight. However, during a fight, people were left to die on the battlefield. Ambulances, carts like this were only used after the fight had finished. People would go in and they would see who was still alive. They would put them on these carts and they would take them to a hospital. These carts were also used to cart the dead as well.

OK, so in the 11th century, the Knights Hospitaller, a group of knights, they set up the first real hospitals. These were hospitals that were dedicated to helping sick people. These hospitals were on the way to the pilgrimage, pilgrimages in the 10th, 11th, 12th centuries. A lot of European knights went to fight in the Middle East to try and save the Middle East from the ... the invading Turks, Ottomans. I think that could be the wrong people. Anyway, they were trying to save Jerusalem, "save" Jerusalem, bring it back into Christianity. But, a lot of people were injured in those fights. So, the Knights Hospitaller, they set up these hospitals along the way to try and help those people.

OK, so the first real kind of ambulance was this one: Larry's flying ambulance. This was set up by a Frenchman, Dominique Jean Larry. He was part of Napoleon's army. And during one of Napoleon's battles, he watched the battle and he saw how many people were injured and just left on the battlefield. And by the time the battle was over and they went to save these people, a large majority, a large percentage of them had actually died. He realized if they could actually go on to the battlefield and save people while the battle was going on, more people could be saved. So, he petitioned Napoleon to get permission to go into the battlefield and to save people, and Napoleon gave him the permission. So, Dominique Jean Larry, he became the first person to send ambulances into a battlefield. The victims were loaded onto these carts and they were taken off the battlefield to be cared for. This is Napoleon, of course.

1832, the first civilian ambulances were invented. Up until that time, there were no real hospitals in cities and there were no real ambulances. If you were sick, you went to a local doctor. However, after about 1832 in New York, I think, the first ambulances were, after 1832, you start to get a system of ambulances. That means that emergency centers, hospitals can start to be outside of the city. So, instead of having one doctor for a few houses, you could start to have a hospital center for a larger group of people. That meant that hospitals could specialize more and hospital care could improve more.

So, the first kind of ambulances were these. Again, they're still horse-drawn carriages because, of course, we don't have motorized vehicles yet. People were still loaded onto them and they were carried off to a hospital. In the American civil war, the use of these ambulances really jumped. 1861 to 1865, the American Civil War. You may already know this, but in the American Civil War, more people were killed through infection and through disease than were actually killed in the fighting. So, a lot of these people were carted off to hospitals, but they still died because hospitals were not very clean, not very sanitary, and not very good yet, by modern standards, of course. So anyway, 1861 to 1865, the American Civil War, the use of ambulances starts to increase.

OK, 1865, we have the first official ambulance service. Again, Bellevue Hospital, which I think is in New York. This was set up to provide fast emergency care. And the idea was to get these ambulances out of the hospitals inside 30 seconds. So, you get a message, within 30 seconds, they harness the horses and they're gone. They actually designed special yokes for the horses so the horses could be harnessed much faster.

Now, these ambulances, they only carried very basic care. They would carry splints for broken bones. They would carry a stomach pump to get out poisons and bad things. They would carry morphine, which was a painkiller, still is a painkiller. And they would carry brandy because brandy is the best-known painkiller. And that's basically all they would carry. Again, the idea was to get the person to the hospital where they would be cared for.

OK, these ambulances became very, very popular. In 1870, they were called out 1401 times, but by 1873 they were being called out almost four and a half thousand times a year. Much more common, much more popular. And once they started to take off, it spread to other cities, of course, around America and around the world, Europe too.

1899, we have the invention of the motorized engine. So now ambulances can be motorized. And this is a picture of one of the first motorized ambulances. It still carries very basic equipment, but it could get to the person a little bit faster than a horse, not much faster yet. World War One is when ambulance services, the technology really starts to take off. But again, still, there's no real care in the ambulance. The goal is still to get the person from the scene of the battle to a hospital as fast as possible.

So, we start to use motorized jeeps. Now these, of course, are much faster than horses. They can also go where horses can't because they have more traction, more grip. But again, people would be injured in the battlefield, they'd be loaded into these ambulances, bang, to the hospital as fast as possible.

After World War One, we start to get ambulances more mainstream in the cities. But because of World War One, there was a huge shortage of drivers. So, for a while, these didn't start to take off. In fact, a lot of funeral companies ran an ambulance service. They would use their hearses. The hearse is used to carry a dead body to a funeral and they would use hearses to carry injured people as well. I'm not sure I'd like to be carried in a hearse to a hospital, but they did do that. And that's actually why some American ambulances still have that hearse shape.

World War Two, this is when things start to change. World War Two, we have much faster service and we also have medics in the field. These are people who are trained to offer medical care to injured people at the battle scene. So, they would be sent into the battle scene. They would try and care for you as much as possible there to stabilize you and then, bang, in an ambulance off to a hospital as fast as possible. So, World War Two is when we start to get a huge spike.

Now, 1952, in the UK, there was a huge train accident, about 150 something people were killed, I think. But here is where we have a very large change in ambulance services. A lot of people died at the scene who could have been saved. They were transported to hospitals, but they died before they got there. So, the powers that be, the smart people, they realized if we could treat people at the scene, we could save more people. So, they came up with a system called CPR. CPR stands for cardiopulmonary resuscitation. Cardio is heart, pulmonary is lungs, resuscitation means saving. They came up with this system. Once this was introduced, when ambulances arrived at an accident, they could perform basic care, CPR and they could keep people alive for longer. More people would reach hospitals in a saveable state. That was a big change, 1952.

This is the inside of an ambulance. As you can see, it's still pretty basic compared to modern days. Then we get a big jump in shape and size. Because we have the CPR now, other advances start to appear. Medical technology improves, medicine improves, medical care improves, and it starts to become more possible to help injured people on the way to the hospital. You don't have to now wait till you get to the hospital. So, because of that, paramedics, who are not doctors, paramedics who are trained in first aid, advanced first aid, they go to the scene and they work on the person in the ambulance to try and keep them alive. So, ambulances have to become higher because these people are going to have to stand up in the back. You can't work on somebody in a basic car. So, ambulance shape changes and we start to see these trucks that you get these days. This is the inside of an ambulance now. Very high tech, very advanced.

Now, here's a point where we can talk about the future a little bit. One of the main advances that is appearing in hospitals is their connectedness. With 5G technology appearing, 5G Internet connections, we have much faster connections, so hospitals can be connected to ambulances. You can have doctors performing analysis on the patient as they're moving from the scene of the accident to the hospital. Before you only have a paramedic. Now you can have a doctor monitoring vital statistics, vital signs, and you can have the hospital being ready to prepare, being prepared to treat the patient when they arrive and knowing what's wrong with the patient in advance. So 5G technology is really going to change ambulances. And then, of course, we get driverless ambulances. That's going to change things even more because now both people in the ambulance can work on the patient. Also, driverless ambulances would be smoother and faster. Out of all the emergency services, ambulance, police, fire, ambulances have the most accidents, partly because they're going fast, but also because they're probably concentrating on the person in the back. When an ambulance crashes, a lot more people are injured because there are more people inside an ambulance. So driverless ambulances would reduce the number of crashes and increase the speed ambulances can get to the hospital.

Okay. And of course, one advance that may happen, I don't know, is with 5G or 6G or 7G, or whatever comes after that, doctors could theoretically be able to operate on a patient using robotics in the ambulance. A doctor in the hospital could control a robot which operates on the patient. I don't know if that's possible, but it could be at some point.

OK, now there are basically two types of ambulance care in the world, something called "scoop and run" and something else called "stay and play". Now, these are divided across the world. Scoop and run. The average time it takes to get from a hospital to the patient and back to the hospital is six minutes and 54 seconds. The idea behind scoop and run is you scoop up the person and you get them to the hospital as fast as possible. Scoop and run. That's the basic idea. Get the patient. Get them to a hospital.

Stay and play, as the name implies, is you work on the patient at the scene a little bit more. So, stay and play ambulances, the paramedics are slightly more trained than the scoop and run paramedics. So, they stay and they try and help the patient as much as possible at the scene. And then they go to a hospital. And the average time there from hospital to patient and back to hospital is about 27 minutes. It's quite a big difference there. Which is better? There's no way of knowing. They both have good points and bad points, obviously. If you look at these maps, you can see scoop and run is mostly these countries. And stay and play for some reason is mostly European countries. I don't know why that's fallen like that.

Anyway, lastly, let's talk about the design of ambulances. We talked about the shape. Obviously, the paramedics have to stand up in the back to work on the patients. There are a few other marks on ambulances that you might have seen. There's this the star of Life, which is the EMS symbol. It has in the middle, it's got the rod of Asclepius ... don't know how to pronounce that ... he was the Greek, which is the ancient Greek symbol of healing. It's a snake wrapping around a rod. And we have the six points of life here. We have early detection, early reporting, early response, on scene care, care in transit, transfer to definitive care, and those that's the star that paramedics, that ambulance crews work by. You might see that on the ambulances in your country, I don't know. Ambulances have a few other things. They're obviously very visible. They have to be visible. They're very bright colors, so we can see them. They have lights, of course, flashing lights. They have different tones. They have sirens. They have a different tone of siren. So, for different areas, because background noise can drown out a lot of sirens, so they change the tone, so they make them very, very audible, very easy to hear. A lot of ambulances these days, this is amazing, they also have a short range FM transmitter blocker. So, if you are listening to your radio, an ambulance is behind you, your radio will cut out and your car will go quiet. That's pretty cool, isn't it? On the front of an ambulance, they also, well not every country, but English speaking countries, they have the word ambulance written backwards. You know why? Of course you do. That's so when you're driving, you can see it in your mirror here. It says ambulance the right way, of course. What about your country? Do they do that, too? I don't know.

Anyway, that was a little bit too long. That was a talk about ambulances. I hope you learned something and I hope you never need to ride in an ambulance. Remember, after this talk, if you go to my homepage, the link's underneath here, you can find the script for this talk. You can find questions, answers and the MP3. Go and practice. Practice your English. The more you practice, the better you get. All right. Thank you. See you next time. Goodbye.

Questions

1. What does the word “ambulante” mean?

A: dying

B: riding

C: walking

D: breathing

1. What does Steven use Google for in this talk?

A: Find pictures of ambulances.

B: Discover what a word means.

C: Read relevant news about the topic.

D: Track a word’s usage over time.

1. What did people use the first kind of ambulances for?

A: To carry people off a battlefield.

B: To bring medical care to people.

C: To help with the fighting.

D: To calm people as they died.

1. Why does Steven use quotation marks around “save” when he says, “they were trying to “save” Jerusalem”?

A: Because Jerusalem was on fire.

B: Because there was a war in Jerusalem.

C: Because he doesn’t know where Jerusalem is.

D: Because Jerusalem didn’t need saving.

5. What did Napoleon give Dominique Jean Larry permission to do?

A: To go onto the battlefield and save people.

B: To start his own motorized ambulance service.

C: To fight all of his battles for him.

D: To buy and sell horses.

6. Which one of these was NOT an effect of having civilian ambulances?

A: Larger hospitals.

B: More specialized hospitals.

C: One doctor for a few houses.

D: Better hospital care.

7. What did most soldiers die of in the American Civil war?

A: Bullet wounds.

B: Infections.

C: Sword cuts.

D: Bomb blasts.

8. Steven says, “They actually designed special yokes for the horses so the horses could be harnessed much faster.” Which of these words is closest in meaning to ***yoke***?

A: cart

B: wheel

C: harness

D: rein

9. What is the goal of ambulances by the end of World War 1?

A: To get the patient to hospital as fast as possible.

B: To try and care for the patient where they are.

C: To deliver people to the battlefront.

D: To help countries to win the war.

10. What changed about the idea of medical care in World War 2?

A: Hearses were used as ambulances.

B: There was no way to reach people because of the ongoing battles.

C: There was a huge shortage of ambulance drivers.

D: There were medics on the battlefield who were trained to off care.

11. What system was invented after the accident in the UK in 1952?

A: BBC

B: CPR

C: FBI

D: CIA

12. What effect did this invention have on the patients?

A: Countries had to build more hospitals.

B: It meant that ambulances had to be bigger.

C: It gave the ambulance service a reason to train their drivers.

D: Patients could be kept alive longer so more people would reach hospital.

13. What advantage will a 5G Internet connection have on ambulances?

A: Doctors will need to be inside the ambulance all the way from the accident.

B: The hospital will be able to track where the ambulance is.

C: Doctors can analyze a patient before they arrive at the hospital.

D: Ambulances will be much safer.

14. What is the idea behind scoop and run ambulance services?

A: To get the patient to the hospital as fast as possible.

B: To get to the patient and help them at the scene.

C: To drive as safely as possible.

D: To improve the technology in ambulances.

15. What is the idea behind stay and play ambulance services?

A: To get the patient to the hospital as fast as possible.

B: To get to the patient and help them at the scene.

C: To drive as safely as possible.

D: To improve the technology in ambulances.

16. Which of these is not one of the six points of life?

A: Early detection.

B: On scene care.

C: Training of medical staff.

D: Care in transit.

17. Why do ambulances have a two-tone siren?

A: So they can play music.

B: So they can be heard over background noise.

C: So they can choose the tone the hospital likes.

D: So they can sound like different emergency services.

18. Which do you think is better, “scoop and run” or “stay and play”?

19. Ambulances and medical care improved greatly during the first and second world wars. What other technology improved because of war?

20. What do you think will be an improvement in medical care in the next ten years, fifty years, and one hundred years.

Answers

1. C 2. D 3. A 4. D (he is using it ironically – the crusades were fought to “save” Jerusalem from the Muslims – to bring Christianity back. Steven says “save” because there is nothing wrong with Jerusalem being Muslim.) 5. A 6. C 7. B 8. C 9. A 10. D 11. B 12. D 13. C 14. A 15. B 16. C 17. B

18. Which do you think is better, “scoop and run” or “stay and play”?

There are advantages and disadvantages to both systems, but I think that “scoop and run” systems are better. No matter how well trained and stocked a “stay and play” ambulance is, it will never be better than a hospital. I would like to compare the two systems on the grounds of speed and survival rates.

The goal of “scoop and run” ambulance services is to get the patient to the hospital as quickly as possible. They know that the patient will have more chance if they are in a proper medical facility. In order to do this, they have the fastest ambulances available and they train their drivers in high-speed driving. Both of these factors mean they can reach the patient and return as fast as possible, and as safely as possible.

Secondly, “scoop and run” ambulance services have a higher rate of survival. This is largely because most accidents happen in urban environments where the nearest hospital is not that far away. In situations like that, it makes much more sense to simply take the patient to the closest hospital.

Taking both of these things into consideration, “scoop and run” systems make much more sense.

19. Ambulances and medical care improved greatly during the first and second world wars. What other technology improved because of war?

There are a lot of things that advance technologically during war and it is difficult to choose just one. I think I would like to talk about the airplane because it is a fairly good example. An airplane was first flown by the Wright brothers in 1901 and within 50 years people were flying by jet to foreign countries.

With the invention of any technology, there is a gradual increase in performance and ability that can take several years. This wasn’t so with the airplane. From its demonstration until 1901, it did follow this pattern and there were very small incremental improvements to the steering systems and the engines and the wings. Then, when Britain and Germany entered World War 1, there was a sudden jump in the technology. Why is that? The reason is money.

When the war started, both sides quickly realized that these new flying machines could give them a great advantage. The object of a war is, obviously, to win, and whoever had the better planes would have more chance of winning. The planes allowed each country to spy on their enemy’s positions. Knowing where the enemy was and what they were doing would give a huge advantage. Also, the planes would be able to drop supplies to troops or drop bombs on the enemy. They changed the face of warfare. Once the ability of planes to alter the outcome of the war was known, each government started to pump unlimited supplies of money into research and development. By the time World War two came around, planes were even more necessary and the pattern of huge investment in research continued. If the two world wars hadn’t have happened, we might still have jet planes, but we wouldn’t have had them as quickly as we did. We have war to thank for this.

20. What do you think will be an improvement in medical care in the next ten years, fifty years, and one hundred years.

As a non-scientist, this is a hard question to answer, but I will try to use my imagination.

Ten years:

Within ten years we will be able to produce vaccinations for any virus extremely quickly. The Corona virus pandemic has shown us that, given enough research money, scientists can produce a vaccination for a virus. Using the new skills that they have discovered I think that it will become easier to synthesize vaccinations. Possibly even for viral diseases such as HIV.

Fifty years:

I think it will be possible for hospitals to 3D print organs and missing body parts. Today, it is possible to print human cells on a 3D matrix. Scientists have managed to print nose and ear parts. These organs are made using cloned cells from the person that they are going to be implanted into, so the body does not reject them and there is no need for immune system suppressing medication. As this technology advances, it will become easier to print more complex organs and within 50 years it will be possible to have a new heart or a new liver made from your own cells.

One hundred years:

By 2121, I think we will have managed to cure almost all diseases. We will all have a swarm of nanobots that live inside us These nanobots will fight infections, repair damage, and attack cancers. These nanobots, coupled with the ability to 3D print organs that are too old or failing, will mean that the average life expectancy of people will reach 300 years.