

# **Supercomputing challenge**

Team number: 53

School name: Mesilla Valley Leadership Academy

Area of science: pathology

## **Project Title: Kissing Disease**

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The kissing disease or mononucleosis as scientifically known. The kissing disease is a disease that will most likely occur to teenagers. But of course you can get this at any age the disease is spread through saliva which is why some people call it the kissing disease. The kissing disease can infect children over the age of one. The kissing disease is caused by EBV of known as Epstein-Barr virus

More even through EBV info on EBV: Epstein-Barr is the virus that causes mononucleosis. EBV isn't a household name you have also have been infected without even knowing also lots of people carry the virus without even getting sick. Even if you have been infected the symptoms will not show up until 4-6 weeks later but when they do they are often mild

How we are going to solve this problem: our plan is to solve this but making sure people don't share things their mouths touched to make sure no one else contracts the disease from the infected person.

What was the most significant achievement? : our most significant achievement was learning about this new disease and how to prevent it because of our research.

A method we used to solve our problem: a method we used was researching up different things like how can you get this disease or contract it from someone else. And because of our research we can now tell how to prevent ourselves from this disease.

A problem we had that we investigated: was why does the kissing disease give you bumps on the back of your mouth. we ran into this problem when trying to figure out how to cure it and we were able to work around it and get our project done and then we ran into another problem how does the kissing disease spread and then we had to do a lot of research to figure that out as well.

How we verified our model: We verified our model by making a survey to give to the students in our school. Asking questions like Do you drink from the water fountain or share and other things in that general area. Things that might be likely to spread mono. When these questions were given to the students in our school we got results showing how long people wash their hands. We showed in our model the spread of mono showing what were to happen if mono is not treated correctly.

Results of our study: the results of our study are how we learned about how to prevent the disease/ cure it and how to tell if you had it also looked up some professionals ( we link their websites later in the doc) on their opinion on how to tell if you have the disease, cure, and prevent it.

Some children that get EBV are less likely to get mononucleosis. If you think you have the kissing disease of mono for short you will get the following symptoms

1. Fever
2. Sore throat
3. Headache
4. Muscle weakness
5. Night sweat

And those are just some of the symptoms but before you think you have mono you should see your doctor for a final decision.

And if your wondering who is at the risk of getting mono some could be

1. Young people between the ages of 15 to 30
2. Students
3. Medical interns
4. Nurses

But there is a way to figure out if you are worried about it when you visit your doctor they will ask you simple questions such as how long have you had these symptoms or if your between the ages of 15 and 25 because age is so important when diagnosing mono because 15 to 25 are most likely to show the symptoms of mono although some symptoms only last from 2 to 4 weeks.

If you are asking wait what if I want to get this checked out by a expert we'll you can go get mono checked out or cured you can go see this expert at Mayo Clinic they have a whole website about treating and diagnosing mono

Here is a link to there website:

<https://www.mayoclinic.org/diseases-conditions/mononucleosis/symptoms-causes/syc-20350328>

<https://www.mayoclinic.org/diseases-conditions/mononucleosis/diagnosis-treatment/drc-20350333>

#### Sources

1. <https://www.webmd.com/a-to-z-guides/understanding-mononucleosis-causes>
2. <https://www.healthline.com/health/mononucleosis>
3. <https://www.medicalnewstoday.com/articles/312256.php>
4. <https://medlineplus.gov/infectiousmononucleosis.html>

The organization that helped make this possible: starlogo nova <https://www.slnova.org>

Screenshots of our work :





