

# What's the Damage?

## How Far Does the "Vaccine" Travel

by Craig Paardekooper

When you are injected with the COVID 19 Vaccine - billions of lipid nano particles (LNPs) enter your body at the site of injection. Each LNP contains the mRNA for coding the Spike protein.

When an LNP comes in contact with any cell, the mRNA infects that cell and causes it to manufacture the Spike. Killer T-cells then attack the infected cell destroying it.

So, where ever the LNPs go, they will cause cells to become infected, and then destroyed.

The big question is – do the LNPs remain located near to the site of injection, or do they spread throughout your body? Do they enter the blood supply?

## How Much of the "Vaccine" Reaches Each Organ ?

The main tissues where Lipid Nano-particles are concentrated following intra-muscular injection are -

- muscle
- liver
- spleen
- lymph nodes

Note that for the LNPs to get from the muscle to the liver, spleen and lungs, the LNPs must be transported along blood vessels - making the endothelial cells that line blood vessels a major target also - causing these endothelial cells to produce spikes - resulting in their subsequent destruction by cytotoxic t cells - in turn leading to inflammation and clotting of the blood vessels.

However, other organs receive much smaller amounts including –

- heart
- bone marrow
- kidney
- stomach
- rectum
- intestines
- testes
- brain

- A 2015 study administered LNP-encapsulated mRNA into mice via various routes. The intramuscular route is one of the most effective ones, resulting in mRNA localization mostly in the liver and, to a lesser extent, the muscles, spleen, and lungs. The mRNA-induced luciferase protein expression peaked at about 5-hour and declined thereafter.
- A 2017 study injected LNP-encapsulated mRNA vaccine into mice and found that the mRNA disseminated mostly into the muscles, lymph nodes, spleen, and liver. But this study also found traces of mRNA in the heart, bone marrow, kidney, lung, stomach, rectum, intestines, testes, and brain. The mRNA-induced protein expression peaked at about 6-hour.
- A 2019 study injected LNP-encapsulated mRNA vaccine into macaque monkeys intramuscularly. The mRNA ended up entering the liver the most, followed by the spleen and muscles. The luciferase protein expression only lasted about 8 hours and then declined.

2015:

<https://www.sciencedirect.com/science/article/abs/pii/S0168365915300535?via%3Dihub>

2017:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5475249/>

2019:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6383180/>

As you can see, the main areas of concentration are muscle, spleen, lymph nodes and liver. It is obvious that for LNPs to reach all of these organs, the LNPs must have entered the blood stream.

This means that the cells lining blood vessels – the endothelial cells – would certainly be exposed – becoming infected then subsequently destroyed by T cells – resulting in inflammation and clotting.

### **Designed for Blood Transport**

In fact, the LNPs are designed with a cholesterol component which allows them to be transported in the blood stream by the lipid carrier molecule APOE.

## What Are The Numbers?

Matrix	$t_{\max}$ (hr)	$C_{\max}$ (ng/mL)		$AUC_{0-264\text{ h}}$ (ng.hr/mL)		$t_{1/2}$ (h)
		Mean	SE	Mean	SE	
Bone marrow	2.0	3.35	1.87	NA		NC
Brain	8.0	0.429	0.0447	13.9	1.61	NR
Cecum	8.0	0.886	0.464	11.1	5.120	NC
Colon	8.0	1.11	0.501	13.5	5.51	NC
Distal lymph nodes	8.0	177.0	170.0	4,050	2,060	28.0
Heart	2.0	0.799	0.225	6.76	1.98	3.50
Ileum	2.0	3.54	2.60	22.6	10.8	5.42
Jejunum	2.0	0.330	0.120	5.24	0.931	8.24
Kidney	2.0	1.31	0.273	9.72	1.44	11.4
Liver	2.0	47.2	8.56	276	37.4	NC
Lung	2.0	1.82	0.555	12.7	2.92	16.0
Muscle (injection site)	2.0	5,680	2,870	95,100	20,000	18.8
Plasma	2.0	5.47	0.829	35.5	5.41	9.67
Proximal lymph nodes	8.0	2,120	1,970	38,600	22,000	25.4
Rectum	2.0	1.03	0.423	14.7	3.67	NR
Spleen	2.0	86.9	29.1	2,270	585	25.4
Stomach	2.0	0.626	0.121	11.6	1.32	12.7
Testes	8.0	2.37	1.03	36.6	11.8	NR

[https://www.researchgate.net/figure/Biodistribution-of-H10-mRNA-in-Plasma-and-Tissue-after-IM-Administration-in-Mice\\_tbl1\\_316527213](https://www.researchgate.net/figure/Biodistribution-of-H10-mRNA-in-Plasma-and-Tissue-after-IM-Administration-in-Mice_tbl1_316527213)

You can see that the LNPs actually reach the **entire body**. Most of the organs are reached within **2 hours**, though the brain, lymph nodes and testes are reached within **8 hours**.

Within 2 hours of vaccination, the concentration of the LNPs within plasma reaches a maximum of 5.47 ng / ml

On average, it **takes** about 45 seconds for **blood to circulate** from the heart, all **around the body**, and back to the heart again. So this means that within 2 hours, every part of your body is exposed to blood with a concentration of LNP of 5.47 ng/ml

The vaccine concentrates in some organs more than others – but reaches all these organs via the blood stream.

## How Much Reaches the Blood Stream?

We can see how much reaches different organs compared to the injection site. This is represented by the AUC number.

AUC for the injection site      95,100

AUC for lymph nodes            38,600

Compared to the amount remaining at the injection site, 40% of that amount, in the form of lipid nano particles, reaches the lymph nodes.

**So at least 40% enters your blood stream !**

## Some Reaches the Brain

Placing a drug inside a lipid nano-particle increased distribution of the drug to the brain by 2.73 times. The nano-lipid particles enable the drug to cross the blood-brain barrier.

What's more, the use of lipid nano particles is the main technology used by pharma to enable drugs to reach the brain.

[https://en.wikipedia.org/wiki/Nanoparticles\\_for\\_drug\\_delivery\\_to\\_the\\_brain](https://en.wikipedia.org/wiki/Nanoparticles_for_drug_delivery_to_the_brain)

## What is the Lipid Made of?

The LNP is a positively charged lipid. This positive charge, alone, makes it extremely toxic to the cell and all of its components, so whatever cells are toxified by this synthetic lipid will become damaged and provoke the immune system.

I should emphasise this point – positively charged lipids (cationic lipids) induce toxicity in every cell type – causing extensive damage leading to interferon levels rising 15-25 fold, and causing a strong inflammatory response.

<https://pubmed.ncbi.nlm.nih.gov/20541799/>

## A Particular Danger to Nerve Cells?

The particular lipid used in the Moderna and Pfizer vaccines is **SM-102** – the “SM” standing for Sphingo-Myelin.

Wiki says - Sphingomyelin (SPH, *ˌsfɪŋɡoʊˈmaɪəlɪn*) is a type of sphingolipid found in animal cell membranes, especially in the membranous myelin sheath that surrounds some nerve cell axons. ... It is a plasma membrane component and participates in many signalling pathways.

<https://en.wikipedia.org/wiki/Sphingomyelin>

So SM-102 is sphingomyelin - a synthetic analogue of the membrane that makes up the myelin sheath surrounding your nerve cells.

However, because it is so similar to the myelin sheath that surrounds nerve cells, antibodies formed against it will also attack the myelin sheath that insulates nerves.

Destruction of the myelin sheath will result in disruption of nerve signals. This may manifest as –

- Transverse myelitis
- Multiple Sclerosis
- Tremors
- Seizures
- Paralysis

These effects will be progressive, since the antibodies, once formed, will persist and continually degrade the myelin, producing increased symptoms over time.

### **Acknowledgements**

I wish to thank Erica Khan for contributing important information regarding the toxicity of positively charged lipids and their distribution in the body following vaccination. Erica works for N.A.S.A and is involved in carbon monitoring.