

[www.react19.org](http://www.react19.org)

Provider  
Education

# Negative Reaction **Positive Action**



Research, Education, Action, with Covid-19, Therapeutics

# REACT<sup>19</sup>





Provider Education

# About Us

Patient-Led collaborative  
dedicated to providing physical,  
emotional, and financial support  
for individuals suffering lasting  
side-effects after Covid  
vaccines.



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# Financial Support



Hope For Humanity



## Care Fund

Independently funded

Up to \$10k awarded to Covid vaccine-injured Americans.

Uncovered medical expenses



## Over \$800k Raised

100% donations to Care Fund go to Covid vaccine-injured





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# Physical Support



Building a network with  
compassionate providers,  
researchers and volunteers.



## Care Networks

**NEW** –Covid  
vaccine injury  
provider network.

Mental Health &  
Provider Network



## Research

Independent Grant  
Program

Research is critical to  
helping find answers  
that US NIH will not find  
with “infection-related  
research.”



## Education

Patient  
education  
webinars

Provider  
Education &  
Virtual Rounds

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# Emotional Support



## Our Community

We represent well over 30,000 American Covid vaccine-injured housed in social media-based support groups with global partnerships expanding this reach.

Censorship challenges

Focus areas -support for injured and bereaved.



Hope For Humanity

## Advocacy Program

RNs and Social Workers

Digital system to connect injured individuals with providers, social support programs and legal teams.



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# React Research



“There’s just this complete dearth of data.” – Dr. Susan Cheng, *Science Magazine*



## Published Studies

Current published lit, includes epidemiological studies and 3400+ case reports. [Covid.CrossTX.com](https://www.covidcross.com)



## Patient-Led Surveys and

**Collaboratives** Help us find the cure. Reviewing the symptoms and treatments can pave the path to solutions.



## Upcoming Research

Future research grant program dependent on independent funding





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# Patient-Led **Surveys**

**508-1000+ Survey Participants**



**SURVEY 1:** First Year – Covid Vaccine **Persistent Symptoms Review**

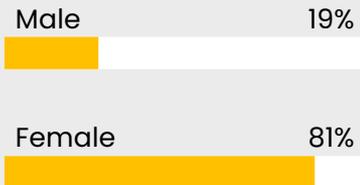
**SURVEY 2:** One Year – Covid Vaccine **Outcomes and Symptoms Progression**

**SURVEY 3:** Two Years – Covid Vaccine **Symptom Clusters & Treatment Outcomes**

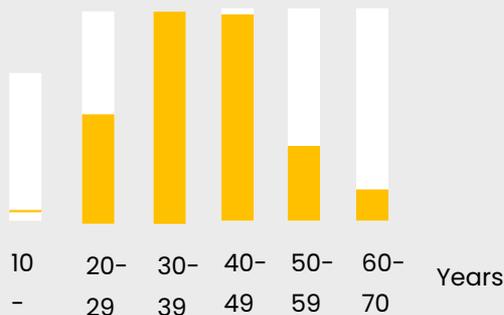
**NOW RECRUITING**



## GENDER



## AGE



Most frequent age range reported is **35-50 years of age**



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# Complimentary Datasets

REACT19 PATIENT DATA LOOKS SIMILAR TO MANY OTHER DATASETS FROM PATIENTS REPORTING GLOBALLY.

## REACT19

[LINK TO SURVEY DATA](#)

81% Female  
Age: 35-45

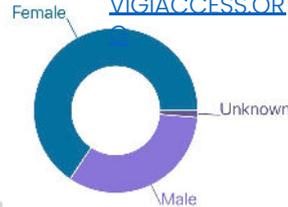
## PVS - Germany

[LINK TO SURVEY DATA](#)

76% Female  
Age: 30-45

## W.H.O. Vigibase

[VIGIACCESS.ORG](#)



## Pfizer P. Market Analysis

[LINK TO ANALYSIS](#)

83% Female  
Age: 31-50

## V-Safe Database

[LINK TO DATABASE](#)

73% Female  
Age: 31-50

Gov and Drug  
Company Reporting  
Systems

Independent Patient  
Analyses

Published Case  
Reports and Series

# Medical History

## Previous Vaccine Reaction?



Prior to Covid vaccination, have you **ever reacted to any previous vaccine** you had received?

**NO - 94%**

## History of Covid Infection



Have you ever had a **positive Covid** infection?

**NO - 76%**

## Pre-Existing Conditions



Do you have any **pre-existing health conditions**?

**NO - 42%**

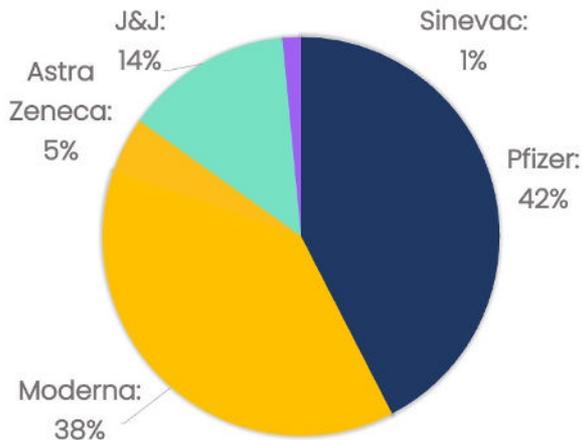


# Patient-Led Surveys



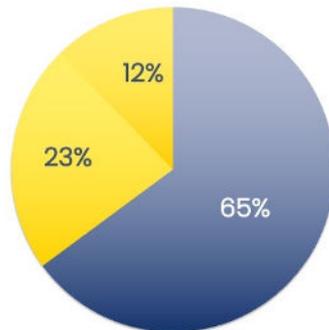
Vaccine Brand  
Vaccine Dose Quantity

Quantity



**Vaccine Brand**

Participants Reported injuries from all vaccine brands.



- 1 dose
- 2 doses
- 2nd dose after AE from first dose

**Vaccine Dose**

Participants Reported injuries from all vaccine brands.

**Vaccine Dose**



Patient-Led Surveys

# Symptoms



Symptom Onset

Symptom Quantity

Symptom Timeline

20

The average number of symptoms reported

0-5 Days

72% of participants reported symptoms began in first 5 days.

When did symptoms begin to improve?



**52%** of participants reported their **symptoms never improved.**



# Top Reported Symptoms

## General

Fatigue	82%
Exercise Intolerance	77%
Sleep Disorders	76%
Dizziness/Vertigo	67%
Muscle Weakness	63%
Chills	36%
Lymphadenopathy	29%

## Neurological

Brain Fog	72%
Paraesthesia	69%
Neuralgia	53%
Headaches	52%
Fasciculations	49%
Tremors	46%
Amnesia	46%
Paralysis	8%
Seizures	3%

## Cardiovascular

Heart Palpitations	66%
Tachycardia	56%
Edema Extremities	52%
Hyper/Hypotension	44%
Varicose Veins	19%
Raynaud's Phenomenon	11%

## Endocrinologic

Adrenaline Surges	58%
Increased Thirst	35%
Heat Intolerance	34%
Dist. in Glucose Levels	13%

## Gastrointestinal

Bowel Problems	44%
Abdominal Pain	41%
Nausea	39%
Heartburn	36%
Flatulence	24%
Melena	8%
Jaundice	5%

## HEENT

Ocular Problems	60%
Tinnitus/ Hyperacusis	59%
Dry Mouth	31%
Sore Throat	22%

## Genitourinary

Urinary Incontinence	37%
Menstrual Disorder	20%

## Dermatology

Skin Problems	30%
Alopecia	27%

## Psychiatric

Anxiety	45%
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## Allergies

New Food Allergies	17%
Anaphylaxis	6%

## Musculoskeletal

Myalgia	60%
Arthralgia	57%
Muscle Atrophy	36%

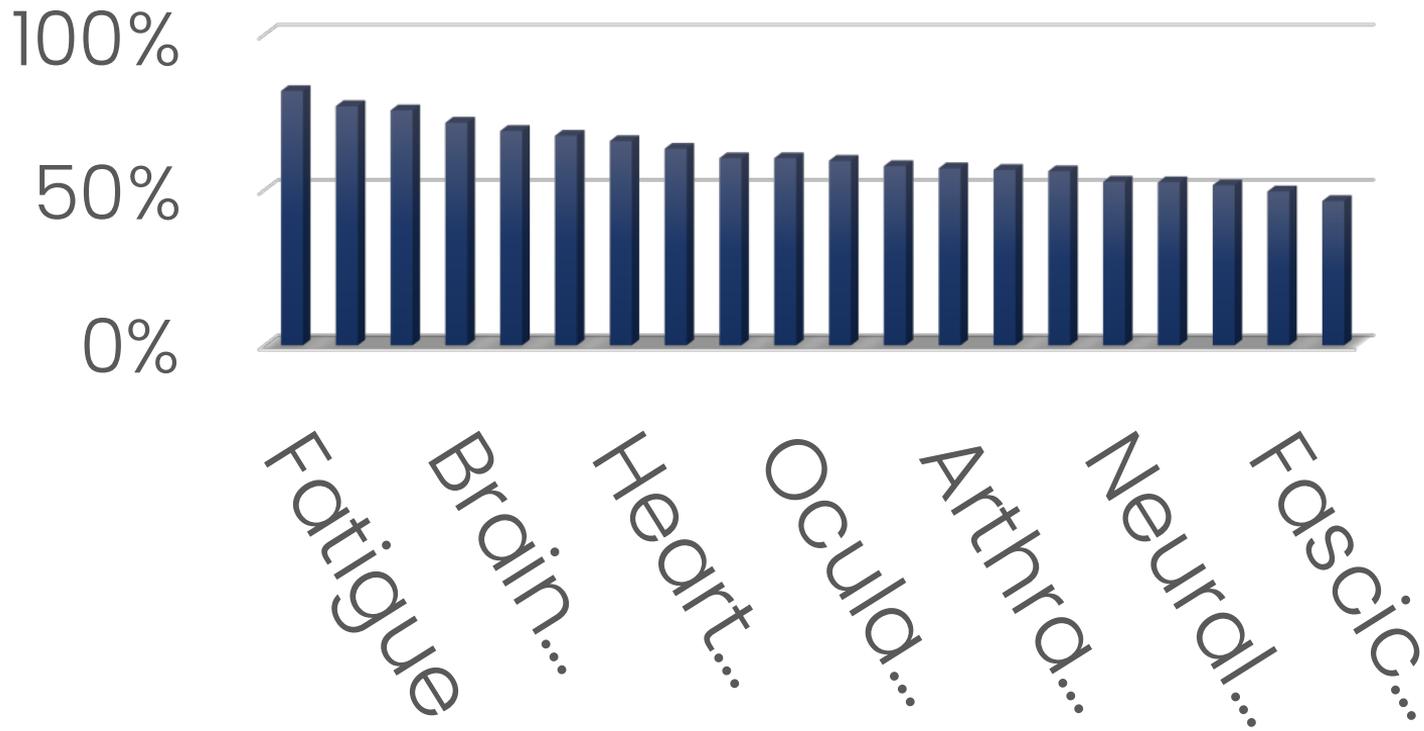
## Respiratory

Dyspnoea	56%
Cough	19%



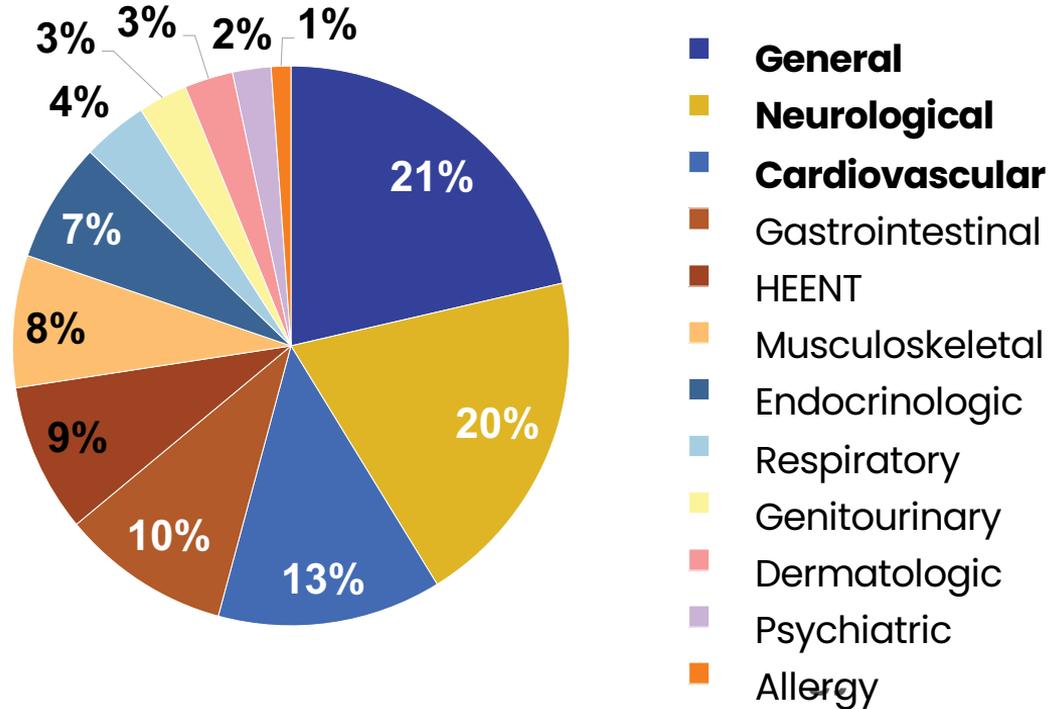
Patient-Led Surveys

# Top 20 Symptoms





# System Classes

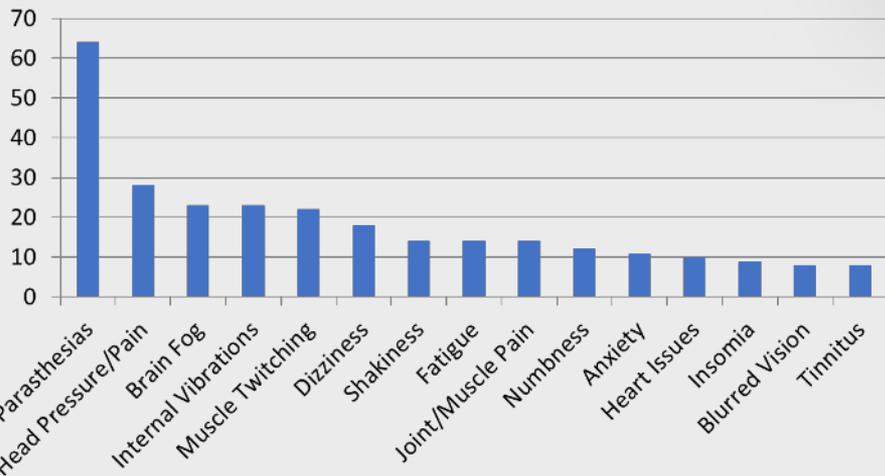






Patient-Led Surveys

# Symptom Relief



If you could eliminate one symptom  
which one would it be?

**23% - Neuropathy**





# Symptom Relief

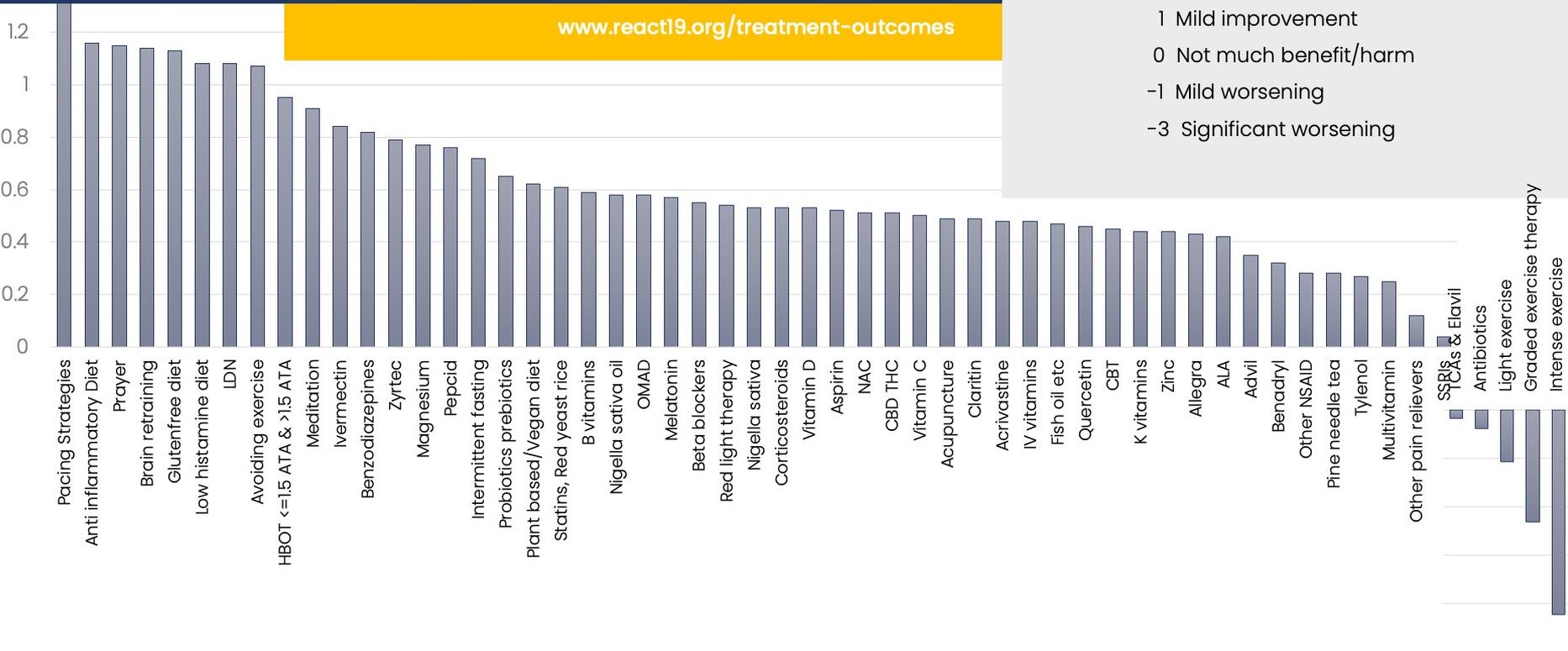
453 Participants - Prelim Analysis

[www.react19.org/treatment-outcomes](http://www.react19.org/treatment-outcomes)



## Top 50 Most Common Treatments

- 3 Significant improvement
- 1 Mild improvement
- 0 Not much benefit/harm
- 1 Mild worsening
- 3 Significant worsening



# Symptom Relief

## Prelim Analysis

Treatments scored by benefit vs. adverse effect / tolerance.  
Most common treatments with N > 56.

### Lowest Scoring Most Common Reported Therapies

- 4 Intense exercise
- 3 Graded exercise therapy
- 2 Light exercise
- 1 Antibiotics

### Highest Scoring Most Common Reported Therapies

- 1 Pacing Strategies
- 2 Anti-inflammatory Diet
- 3 Prayer
- 4 Brain retraining
- 5 Gluten free diet
- 6 Low histamine diet
- 7 LDN
- 8 Avoiding exercise
- 9 HBOT  $\leq 1.5$  ATA &  $> 1.5$  ATA
- 10 Meditation
- 11 Ivermectin
- 12 Benzodiazepines
- 13 Zyrtec
- 14 Magnesium
- 15 Pepcid
- 16 Intermittent fasting
- 17 Probiotics prebiotics
- 18 Plant based/Vegan diet



# Symptom Relief

## Emotional Wellbeing

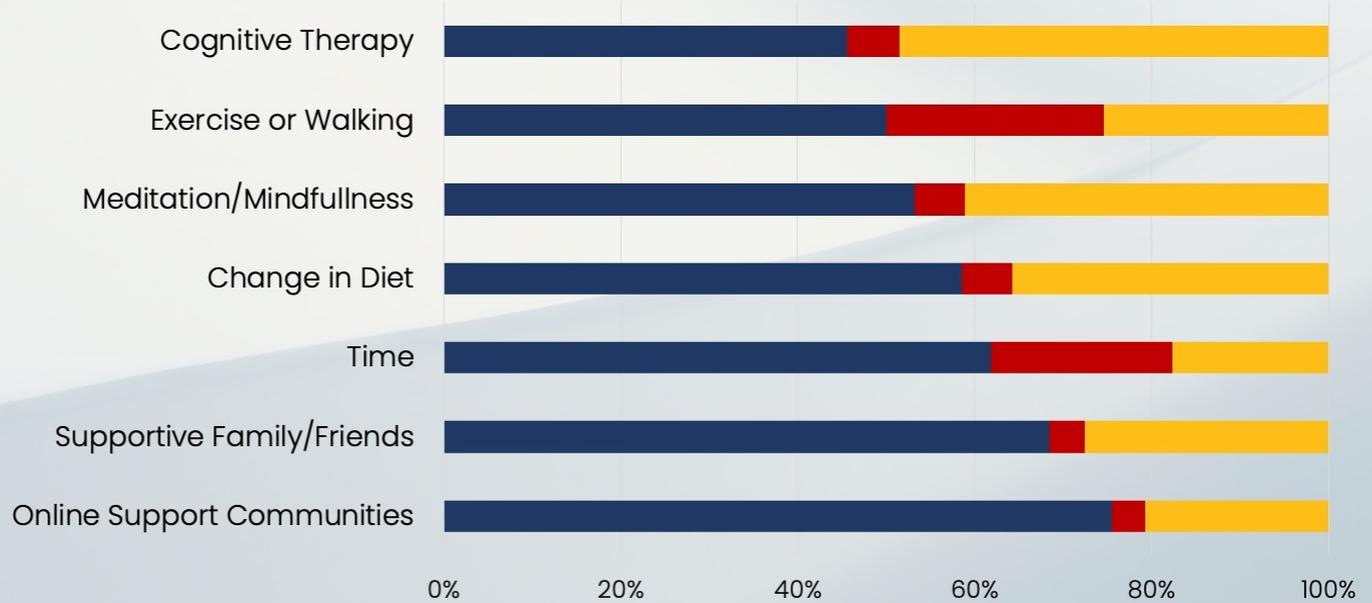
Helped

Stayed The Same

Worsened



How did the following interventions affect your mental health conditions as a result of your Covid vaccine injury?





Patient-Led Surveys

# Quality Of Life



Previously healthy, working individuals report a dramatic change in their daily living.

**11%**

Bed Bound

**57%**

Unable To Exercise

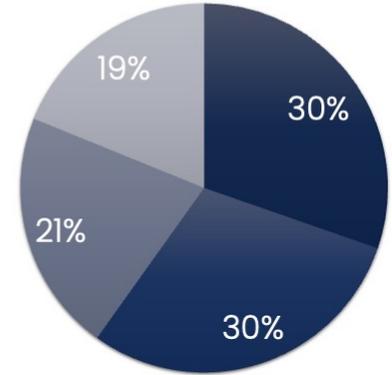
**33%**

Unable To Work

Respondents with pre-existing conditions may be more likely to be unable to work → higher reported severity

Do you feel you are improving, staying the same, getting worse?

- Yes
- Not better, symptoms evolving
- No
- Staying the same

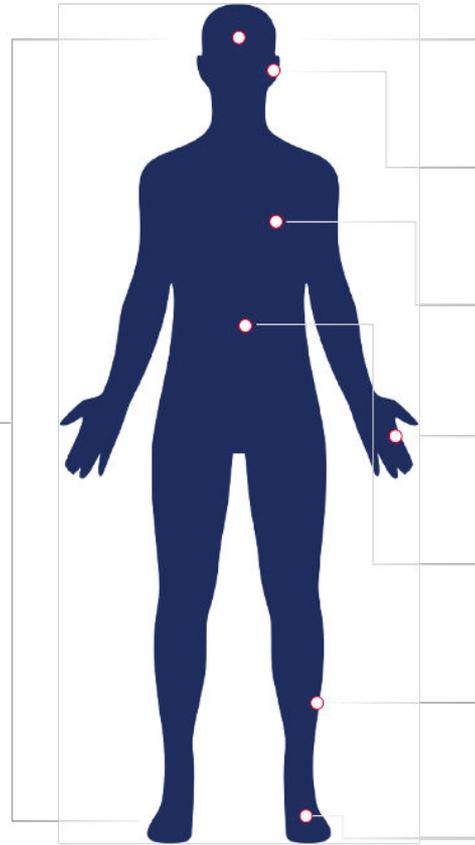


No + Not better, symptoms evolving  
**51%**

# Post Covid Vaccine Syndrome

## Common Diagnoses

- Inflammation
- Pericarditis
- Myocarditis
- Dysautonomia
- Neuropathy
- Autoimmunity
- POTS (Postural Orthostatic  
Tachycardia Syndrome)
- Guillian Barre Syndrome
- Transverse Myelitis
- Stroke / Clots
- ME/CFS
- CIDP
- MCAS



Headaches  
Tinnitus / Vision Issues  
Memory Loss



Brain Fog / Fatigue  
Sleep Disturbances  
Post Exertional Malaise



Chest Pain / Tightness  
Heart Rate Issues  
Shortness of Breath



Twitching / Tremors  
Limb Weakness  
Muscle or Joint Pain



GI Issues / Diarrhea  
Food Sensitivities  
Bladder Issues



Rashes / Hives  
Bruising



Burning or Tingling  
Numbness  
Internal Vibrations

# Mechanisms & Diagnoses

## COMMON DIAGNOSES

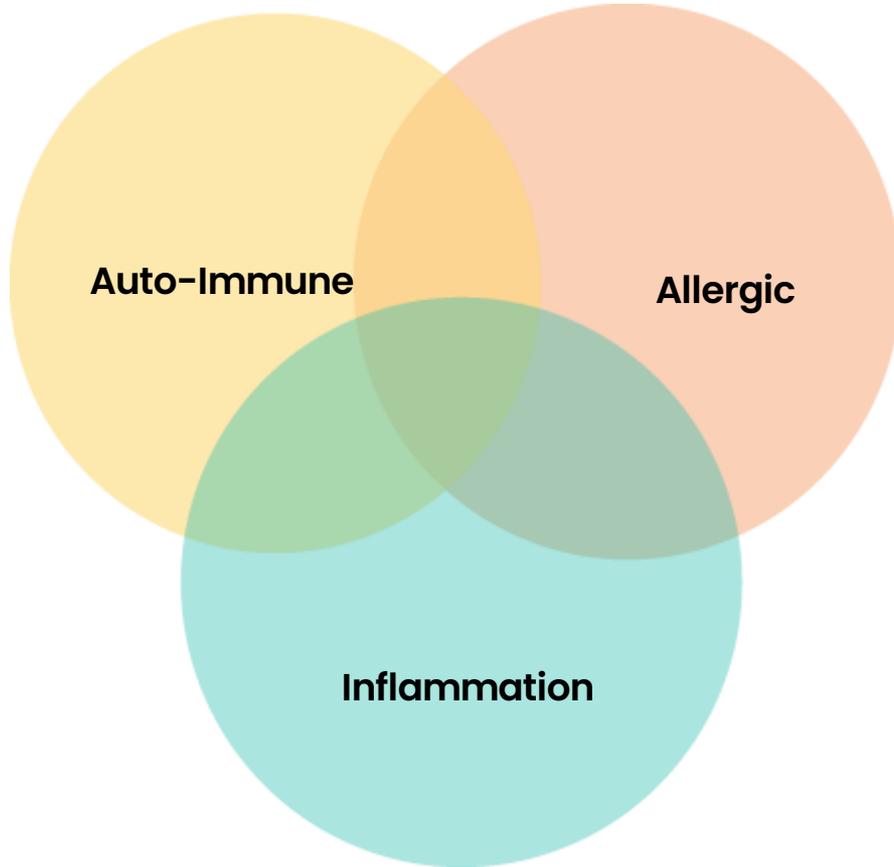
Allergic

Auto-Immune

Inflammation

Multiple mechanisms and multiple system involvement create challenges to identify diagnoses and therapeutics.

- CRPS / ARDS
- Myocarditis
- Dysautonomia
- Neuropathy
- Neuralgia
- Autoimmunity
- POTS (Postural Orthostatic Tachycardia Syndrome)
- Guillian Barre Syndrome
- Transverse Myelitis
- Stroke / Clots
- ME/CFS
- MCAS



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# Clinical Considerations

Possible Etiology

IT'S IMPORTANT TO REMEMBER THAT THESE ISSUES ARE NOT EXCLUSIVE TO ONE MECHANISM OF ACTION. MANY MECHANISMS ARE AT PLAY AND OVERLAP IS OFTEN FOUND IN EACH PATIENT.

## TOP 6 TESTS:

1 - SFN Skin Biopsy Test

2 - Autonomic Testing / Tilt-Table

3 - Autoantibodies: TS-HDS, FGFR3, ACE 2, MAS 1, Alpha 1

4 - Elevated Histamine / Histamine Intolerance

5 - Cardiovascular: Echocardiogram, troponin, d-dimer, BNP, cardiac MRI with contrast

6 - Inflammation / MIS-V: C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or

# Diagnostics Guide

[Link To Guide](#)

## SECTION 1 (of 13): BLOOD TESTS

\*Not including more specific blood work for neurology, auto-immunity and cardiovascular. See those in sections 2-4

\*\*Attempt to have PCP order labs in this section during your first visit:

<b>ANA</b>	Negative result does NOT rule out auto-immunity
<b>BNP (Brain natriuretic peptide)</b>	Heart inflammation - myocarditis
<b>Complement 3, Complement 4 (C3, C4)</b>	A non-specific autoimmune marker initially often tested before more advanced testing.
<b>Complement Total 50 (CH50)</b>	Measur...
<b>Complete Blood Count (CBC w/ Diff)</b>	A...
<b>Comprehensive Metabolic Panel (CMP)</b>	A...
<b>Copper</b>	C...
<b>C-Reactive Protein (CRP)</b>	P...
<b>Erythrocyte Sedimentation Rate (Sed Rate-ESR)</b>	Inflam...
<b>D-Dimer</b>	Run D-dimer especially if there are signs or symptoms of blood clotting. Note that D-dimer tests can fluctuate and in the absence of

## Find the positives

The broad spectrum of symptoms and multiple system involvement, makes for a difficult pathway for diagnosis and treatment.

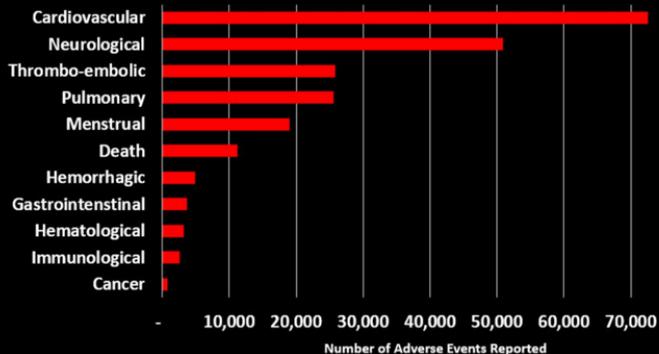


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# Identifying Safety Signals

Credit: Joshua Guetzkow, PhD

Major Categories of Adverse Event Safety Signals from CDC's Analysis of VAERS Reports for mRNA COVID Vaccines

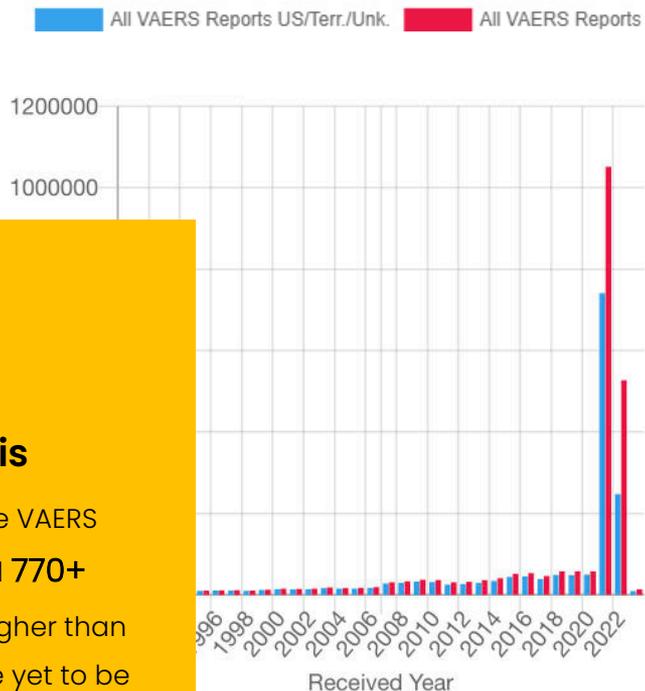


## CDC Analysis

The CDC analyzed the VAERS database and found **770+** safety signals, 500 higher than myocarditis. These have yet to be disclosed to the public. [\[Analysis\]](#)

CDC VAERS Analysis

## All Reports to VAERS by Year



[\[OpenVAERS.com\]](https://www.openvaers.com)

VAERS Reports



## HOW RARE IS IT?



### VA Comparative Safety Analysis

3.1% of 450k veterans received a **neurological dx** after Covid vaccination. An additional **3.4%** received **hematology**, and **2.6%** had **arrythmia**. [\[Source\]](#)

### “Vaccine” Vol 40 (9/2022)

Dr. Joseph Fraiman et. al analyzed Covid vaccine phase 3 clinical trial data and found **1 in 800** **suffered a serious adverse event**. [\[Source\]](#)



### V-Safe Database

**7.7%** of V-Safe Participants **sought medical care after vaccination**. 21-33% were unable to participate in work, school or daily activities. [\[Source\]](#)

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Published Literature

# MIS-V

## Multisystem Inflammatory Syndrome

01.

### 32+ CASE REPORTS

Systemic inflammation can occur after the initial onset of the reaction. **Studies are [HERE](#)**

02.

### MIS-V OCCURS IN TEENS AND YOUNG ADULTS

Like in Covid19, the vast majority of fatal and serious cases of MIS-V are found in teens and young adults.

03

### MIS-V CAN BE FATAL

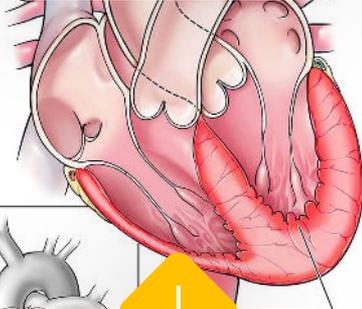
Early recognition and treatment is critical.

**REACT19 AND OUR PARTNERS  
URGENTLY REQUEST THE  
AGENCIES RECOGNIZE MIS-V, TO  
PROTECT THE YOUNGEST WHO  
ARE AT GREATEST RISK.**



# Cardiovascular Complications

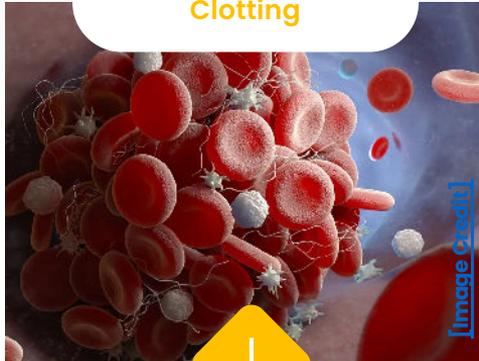
## Myo/Pericarditis



### Myo Studies [HERE](#)

Acknowledged side effect. Can leave permanent damage.

## Clotting



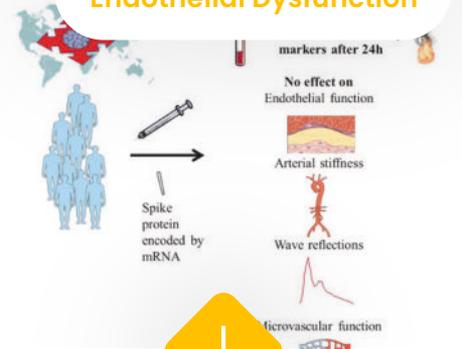
[Image Credit]



### Emerging Understanding

Agencies are beginning to look. Micro-Clotting also a concern.

## Endothelial Dysfunction



### Damage & Weakening of the Endothelium

Damage and weakened endothelium in acute and chronic cases

## Sudden Heart Failure



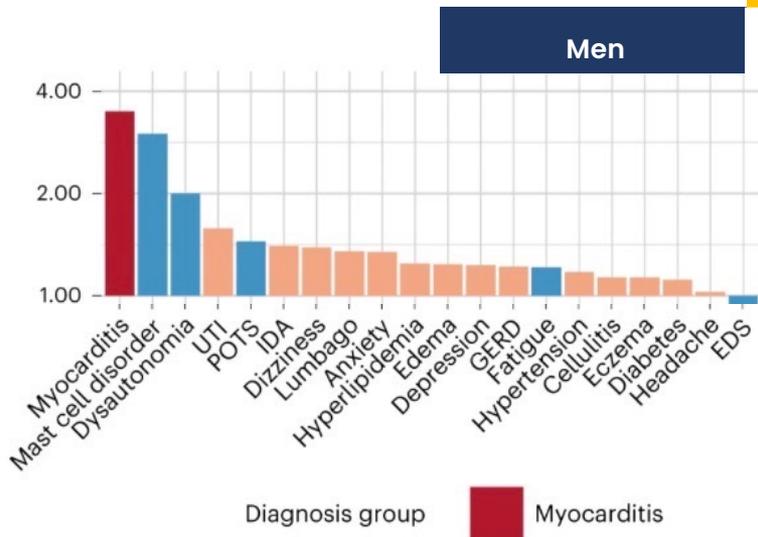
### Root Cause Unknown

More investigation is needed. 2 Studies: [\[Study 1\]](#) [\[Study 2\]](#)

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# Cardio & Neuro Research

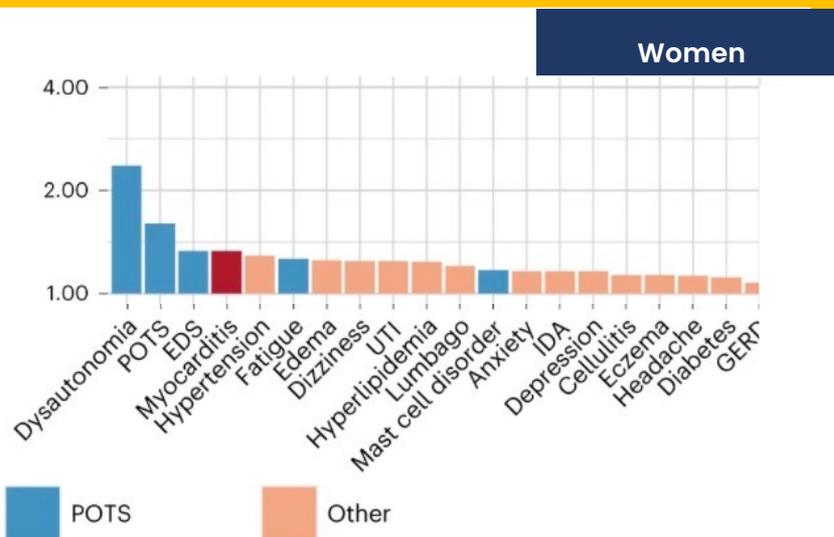
## POTS Study. Nature

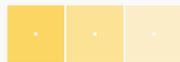


## Men vs. Women

"We found that the five conditions with the highest post-vaccination odds of new diagnoses were myocarditis, dysautonomia, POTS, mast cell activation syndrome and urinary tract infection (UTI).

Women were more likely to be diagnosed with Dysautonomia and POTS than myocarditis." [\[Analysis\]](#)





# Early Intervention

"...However, **the rapidity of approval, and history of prior vaccination regimens resulting in neurological and other complications**, creates concern surrounding widespread vaccination. ...

"A number of neurological complications of these vaccines are now being reported in the most comprehensive registry, the Vaccine Adverse Events Reporting System (VAERS) database. These include **strokes, cranial neuropathies including Bell's palsy, tinnitus and trigeminal neuralgia, peripheral neuropathies, dysautonomia, acute disseminated encephalomyelitis, transverse myelitis and AIDP** .. however, it is too early to know the true incidence and risk factors for these complications. They are thought to be **immune mediated and early recognition and treatment with immunomodulatory therapies might be warranted...**



National Institute of  
Neurological Disorders  
and Stroke

## "Neurology"

[Published 10/2021](#)

[\[Source\]](#)



**"Prior studies have shed light on the likelihood of neurological complications following vaccination.** These data can be difficult to interpret and are often seen as controversial, suffering from potential reporting bias and lack of clear causality, but **illustrate theoretical concerns for both patients and physicians and must be acknowledged."**



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# Current Research

Honored to work with our  
current and previous  
research partners

01.

[Yale – Kindred Study](#)

Dr. Harlan Krumholz  
and Dr. Akiko Iwasaki

02.

**React19 Mitochondria  
Study**

Mito dysfunction with  
injured vs controls.

03.

[Univ. of Marburg](#)

Symptoms Survey  
Post Vac  
Syndrome  
Group

04.

[Long-haul  
Vaccine Survey](#)

Dr. Harriet Carroll

**Other notable  
partnerships:**

University of Arizona

UCSF

Mayo Clinic



Independent research is key to find effective therapeutics and more clues.

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# Future Research

**Several independent researchers are ready to launch key studies. However we need your help to fund these essential studies.**



## Genomics Study

100–500 genetic samples from vaccine-injured.

Compare to 100k control samples

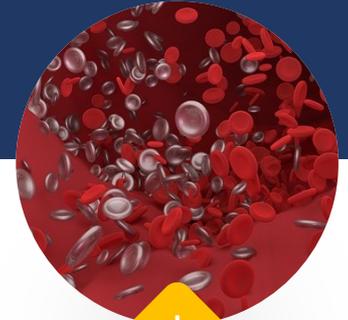
**Goal:** Identify any potential predisposition to injury.



## Bio-Markers Study

90 participants, specific biomarkers.

**Goal:** Identify similar positive labs, classify syndromes, find potential tests for vaccine-injury.



## MRI Study

Multiple brain MRIs to be evaluated.

**Goal:** Look for common abnormalities in these MRIs of post vaccine patients



# Thank You

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[www.react19.org/get-involved](http://www.react19.org/get-involved)