



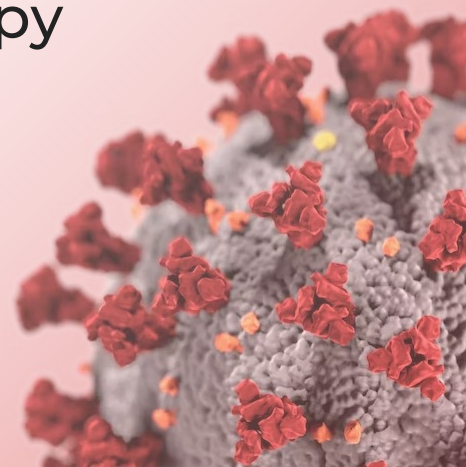
**EMERGING APPROACHES TO TREATING  
SPIKE PROTEIN-INDUCED DISEASES**

April 28-29, 2023 • Fort Worth, Texas

Spike-protein diseases and  
the impact of hormone therapy:  
2 case presentations discussing therapy  
in men and in women

Presented By:

**Flavio A. Cadegiani, MD, MSc, PhD**



# INTRODUCTION – HORMONES IN THE CONTEXT OF SARS-COV-2 SPIKE PROTEIN DISEASES

1. SARS-CoV-2 spike protein has intense tropism for ovaries and testicles
  - a. Reduction in fertility and hormone production in men
  - b. Reduction in ovary reserve in women
  - c. Potential site for spike protein sanctuary

2. Are hormones a shortcut and a palliative solution?

3. Are bioidentical hormones ‘good’ for Big Pharma?

**Not at all.**

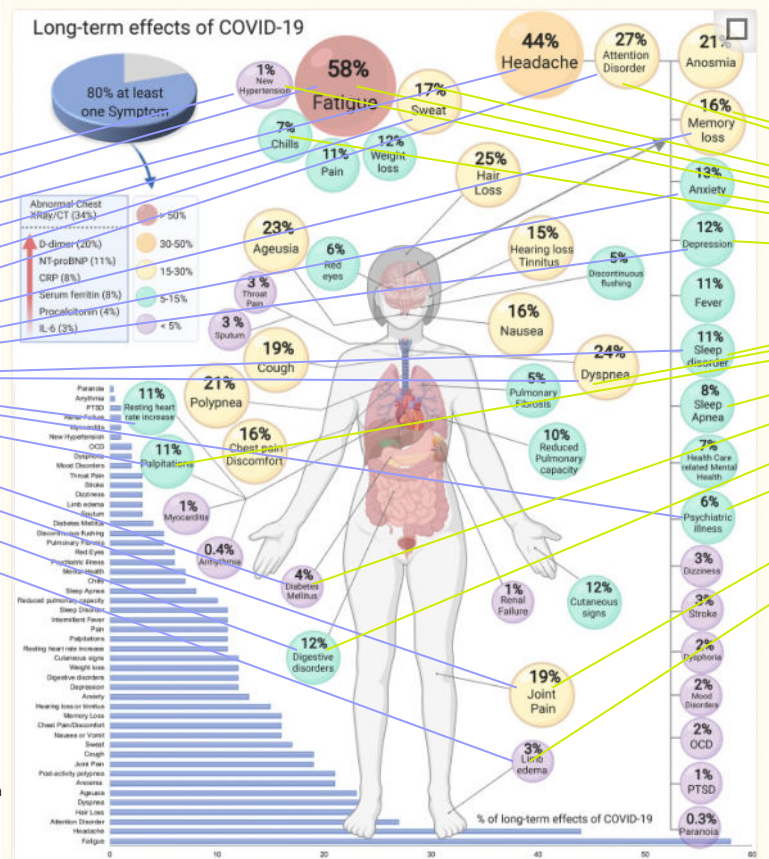
- They prevent multiple chronic diseases (\$\$\$)
- At which level of healthcare do hormones stand?
  - **Convenient hormonophobia**



# INTRODUCTION – HORMONES IN THE CONTEXT OF SARS-COV-2 SPIKE PROTEIN DISEASES

→ **WOMAN**  
(low E2/P)

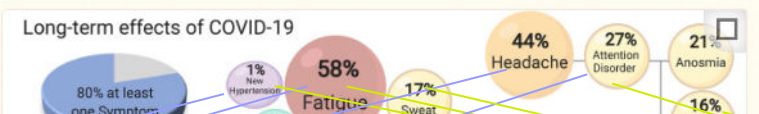
→ **MAN**  
(low T)



Lopez-Leon S, Wegman-Ostrosky T, Perelman C, Sepulveda R, Rebolledo PA, Cuapio A, Villapol S. More than 50 long-term effects of COVID-19: a systematic review and meta-analysis. Sci Rep. 2021 Aug 9;11(1):16144. doi: 10.1038/s41598-021-95565-8



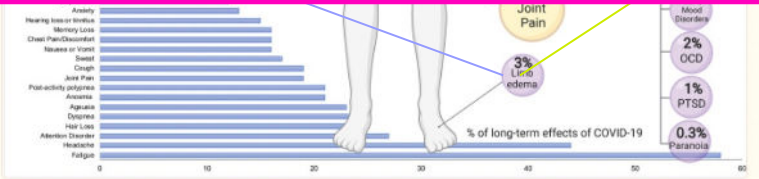
# INTRODUCTION – HORMONES IN THE CONTEXT OF SARS-COV-2 SPIKE PROTEIN DISEASES



More than 80% of the symptoms of post/long SARS-CoV-2 spike protein disease are also present in ‘hypoestrogenism’ (menopause and others) and in hypogonadism (low T).

→ **WOI**  
(low E)

→ **MAN**  
(low T)



Lopez-Leon S, Wegman-Ostrosky T, Perelman C, Sepulveda R, Rebolledo PA, Cuapio A, Villapol S. More than 50 long-term effects of COVID-19: a systematic review and meta-analysis. Sci Rep. 2021 Aug 9;11(1):16144. doi: 10.1038/s41598-021-95565-8

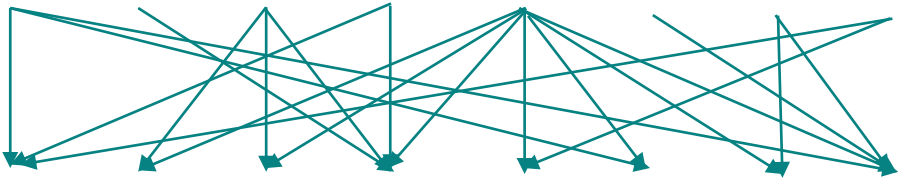
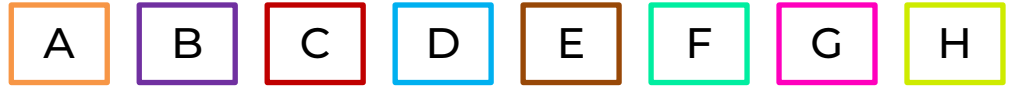


# PRINCIPLES FOR TREATMENTS OF POST/LONG-SARS-COV-2 SPIKE PROTEIN DISEASES

PATIENT



TREATMENT



Time of follow-up → Since 2016 (7 Years)

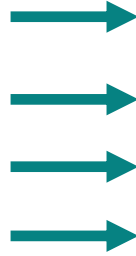
Age at start → 37 y/o

Current age → 45 y/o

# CASE → WOMAN

## Pre-Spike Medical History

1. Pre-Spike  
Known Diseases
2. Pre-Spike  
Body Measures
3. Medications and  
Supplements
4. Blood exams and  
imaging



- None
- 1.69m | 57.7kg (127.2lb) | BMI 20.2 kg/m<sup>2</sup>  
Body fat → 19.8% (Bioimpedance) | 21.1% (Dexa)
- Vitamin D 5,000iu daily |  
Whey Protein 1 scoop daily
- Normal

## 1st SARS-CoV-2 Spike Protein Contact

1. **1st COVID-19 infection** → **July/2020**

2. **Treatment (YES!)**

→ Nitazoxanide + hydroxychloroquine + spironolactone +  
vitamin C + vitamin D + zinc + L-arginine (cocontained in vitamin C)

3. Symptoms' duration → **02 days**

4. **Post/Long-spike** protein contact symptoms → **None**



# CASE → WOMAN

## 2nd SARS-CoV-2 Spike Protein Contact

1. **1st dose** SARS-CoV-2 vaccine **mRNA Pfizer** → **June/2021**
2. **No** symptoms
3. No treatment required
4. **Post/Long**-spike protein contact COVID symptoms → **None**

## 3rd SARS-CoV-2 Spike Protein Contact

1. **2nd dose** SARS-CoV-2 vaccine **mRNA Pfizer** → **September/2021**
2. Major symptoms →  
**Flu-like symptoms** → **45 days**  
**Fatigue** → **3 months**
3. **Treatment** → **Did not search** for medical help | **NONE**
4. **Post/Long**-spike protein contact symptoms →  
**No symptoms** persisted **after 3 months**



# CASE → WOMAN

## 4th SARS-CoV-2 Spike Protein Contact

1. **2nd COVID-19 infection** → **January/2022**
2. **Treatment** → **NONE** (She thought that 'vaccines' would prevent her from worsening)
3. **COVID-19 symptoms** and post/long-spike protein contact symptoms → **Everlasting...**
4. Post/Long-spike protein contact major symptoms →
  1. **Extreme fatigue** → Slow and incomplete improvement
  2. **Incapacitating brainfog** → Not improving
  3. **Reduction in physical capacity** → Slow and incomplete improvement
  4. **Irregular cycles** → Intermittent
  5. **Hot flashes** → Intermittent
  6. **Vision loss** → Permanent
  7. **Weight gain** → Progressive  
(15kg/33lb in 3 months)

Did not look for medical treatment until 5th Spike Protein Contact because  
**'she was told' there was no treatment**





# CASE → WOMAN

## 5th SARS-CoV-2 Spike Protein Contact

1. 3rd dose SARS-CoV-2 vaccine mRNA Pfizer → April/2022

- She took the 3rd dose because:

- a. She **believed in 'Science'**
- b. She was told that **vaccine could improve her long COVID**
- c. She said she believed **I had become a 'Science denier'**  
(she's leftist and she thought that I had aligned with Bolsonaro), so **she didn't trust me anymore**

2. Post/Long-spike protein contact symptoms →

**WORSENING of previously persistente symptoms**  
**NEW ONSET symptoms**  
**CHANGES in SYMPTOMS' PATTERNS**  
**REFRACTORY symptoms**

3. This patient seeked for medical help 02 months after the 3rd dose SARS-CoV-2 vaccine mRNA Pfizer, in early June 2023.

**- She confessed 'she was blinded by the system'.**

4. No judgements and no hard feelings

We investigated secondary diseases triggered by SARS-CoV-2 Spike Protein.



# CASE → WOMAN

## 5th SARS-CoV-2 Spike Protein Contact

5. Post/Long-spike protein contact major symptoms →

1. **Extreme fatigue** → **Worsened**, not improving
2. **Incapacitating brainfog** → **Worsened**
3. **Memory loss** → **New and progressive**
4. **Attention disorder** → **New**, not improving
5. **Depression** → **New and progressive** (secondary?)
6. **Anxiety** → **New and progressive** (secondary?)
7. **Sleep disorder** → **Sudden and severe**
8. **Reduction in physical capacity** → **No longer improving**
9. **Cough** → Night coughs, continuous
10. **Nausea** → Morning nausea, intermittent
11. **Irregular cycles** → Erratic pattern (**worsening**)
  12. **Hot flashes** → **Worsened**
  13. **Vision loss** → Maintained
  14. **Weight gain** → **Further gain**  
(total of 30kg/66lb in 6 months)
  15. **New-onset pre-diabetes**

# Post-5th SARS-CoV-2 Spike Protein Contact Blood/Biochemical Exams of Interest

CASE → WOMAN

	Before 2020	Sep 2020	June 2022
<b>T-CD4</b> Lymphocytes (477-1141 /mm3)	770	812	528
<b>25(OH)D</b> (30-100 pg/mL)	26-52	33.0	47.0
<b>1,25(OH)D</b> (20-80 pg/mL)	56-89	38.4	18.5
<b>Noradrenaline</b> (400 pg/mL)	187-332	224	457
<b>Adrenaline</b> (<60 pg/mL)	<15-33	<15	40
<b>ft3</b> (2.3-4.2 pg/mL)	3.2-4.0	3.8	2.8
<b>rT3</b> (0.31-0.95 ng/mL)	-	0.43	0.88
<b>LH</b> (menopause > 16 miU/mL)	2.5-6.0	4.5	6.4
<b>FSH</b> (menopause > 23 miU/mL)	1.8-8.5	5.8	15.6
<b>Estradiol</b> (men. < 32.2 pg/mL)	80-220	138	44
<b>DHEA-S</b> (35-430 ug/dL)	110-185	191	55
<b>Total Testosterone</b> (10-48 ng/dL)	-	-	< 7
<b>IGF-1</b> (80-220 ng/mL)	-	-	57
<b>AMH</b> (ng/mL)	-	-	0.8
<b>ANA</b>	-	-	1/80 Speckled

## Other exams

	Before 2020	Sep 2020	June 2022
<b>T-CD8</b> Lymphocytes (212-725 /mm3)	588	710	563
<b>ESR-1h</b> (< 20 mm/1h)	2-7	4	8
<b>Hs-CRP</b> (< 1.0 mg/L)	0.05-0.12	0.08	0.06
<b>D-dimer</b> (< 500 ng/mL FEU)	<215	330	<215
<b>Homocysteine</b> (5-12 umol/L)	8.5-13.8	7.8	10.4



# CASE → WOMAN

## 1st treatment regimen for 45 days →

1. Metformin XR 850mg BID
2. Vitamin D 20,000iu/day
3. Ivermectin 12mg/day
4. Bifidobacterium multistrain 15bi/day
5. Vitamin C 1g/day
6. L-arginine 1g/day



# CASE → WOMAN

## 1st treatment regimen for 45 days →

1. Metformin XR 850mg BID
2. Vitamin D 20,000iu/day
3. Ivermectin 12mg/day
4. Bifidobacterium multistrain 15bi/day
5. Vitamin C 1g/day
6. L-arginine 1g/day

## 2nd treatment regimen for 45 days → *(added)*

7. Transresveratrol 100mg BID
8. Curcumin 500mg BID
9. N-Acetyl-Cysteine 500mg BID
10. CoQ10 200mg BID
11. Naltrexone 4.5mg/night
12. Magnesium 'multisalt' 1g/night
13. Omega 3 2g BID
14. Oxytocin 40iu BID
15. Methylfolate 10mg/day
16. Methylcobalamine 5mg/day
17. Pyridoxal-5-Phosphate 25mg/day
20. Melatonin 'DUO' 1mg/night



# CASE → WOMAN

## Response to 1<sup>st</sup> and 2nd treatment regimens →

1. Extreme fatigue → Slight improvement
2. Incapacitating brainfog → Slight improvement
3. Memory loss. → Slight improvement
4. Attention disorder → Did not improve
5. Depression. → Slight improvement
6. Anxiety → Did not improve
7. **Sleep disorder** → **Improved significantly**
8. Reduction in physical capacity → Remained moderate
9. Cough → Worsened again
10. **Nausea** → **Improved**
11. Irregular cycles → Did not improve its erratic pattern
12. Hot flashes → Remained
13. Vision loss → Slight improvement
14. Weight gain → She lost 5kg/12lg

# Post-1st and 2nd treatments -5th SARS-CoV-2 Spike Protein Contact

## Blood/Biochemical Exams of Interest

CASE → WOMAN

	Before 2020	Sep 2020	June 2022	Sep 2022
<b>T-CD4</b> Lymphocytes (477-1141 /mm <sup>3</sup> )	770	812	528	679
<b>25(OH)D</b> (30-100 pg/mL)	26-52	33.0	47.0	187.0
<b>1,25(OH)D</b> (20-80 pg/mL)	56-89	38.4	18.5	23
<b>Noradrenaline</b> (400 pg/mL)	187-332	224	457	386
<b>Adrenaline</b> (<60 pg/mL)	<15-33	<15	40	45
<b>fT3</b> (2.3-4.2 pg/mL)	3.2-4.0	3.8	2.8	3.1
<b>rT3</b> (0.31-0.95 ng/mL)	-	0.43	0.88	0.75
<b>LH</b> (menopause > 16 miU/mL)	2.5-6.0	4.5	6.4	4.8
<b>FSH</b> (menopause > 23 miU/mL)	1.8-8.5	5.8	15.6	15.4
<b>Estradiol</b> (men. < 32.2 pg/mL)	80-220	138	44	50
<b>DHEA-S</b> (35-430 ug/dL)	110-185	191	55	52
<b>Total Testosterone</b> (10-48 ng/dL)	-	-	< 7	13
<b>IGF-1</b> (80-220 ng/mL)	-	-	57	133
<b>AMH</b> (ng/mL)	-	-	0.8	1.0
<b>ANA</b>	-	-	1/80 Speckled	negative



# CASE → WOMAN

## 3rd treatment regimen (4th month) for 60 days →

1. Metformin XR 850mg BID
2. Vitamin D 20,000iu/day
3. CoQ10 200mg BID
4. Vitamin C 1g/day
5. L-arginine 1g/day
6. Magnesium 'multisalt' 1g/night
7. Omega 3 2g BID
8. Melatonin 'DUO' 1mg/night
9. Estradiol (identical) 1.8mg/night (topical)
10. Progesterone micronized (identical) 200mg/night (oral)
11. Testosterone (identical) 3.0mg/night (topical) – compounded

## What are bioidentical hormones?

Bioidentical hormones are processed hormones designed to mimic the hormones made by your body's glands. Taking bioidentical hormones can help people who experience symptoms of low or unbalanced hormones. This is often the case for people experiencing symptoms of [perimenopause](#) or [menopause](#).

Hormones are chemicals made by your [endocrine](#) glands. They are messengers that tell other parts of your body how and when to work. Hormones affect many systems and functions in your body. Even the slightest imbalance can cause symptoms that interfere with your day. Healthcare providers may recommend hormone replacement therapy as a treatment for these symptoms.

Bioidentical hormone therapy (BHRT) uses processed hormones that come from plants. [Estrogen](#), progesterone and testosterone are the most commonly used [bioidentical hormones](#).

[Some prescription forms of bioidentical hormones are premade by drug companies.](#) The U.S. Food and Drug Administration (FDA) has approved certain types of bioidentical hormones. Other forms of bioidentical hormones are custom-made by a pharmacist based on a healthcare provider's prescription. These are compounded (or mixed) bioidentical hormones.





# CASE → WOMAN

## **3rd treatment regimen (4th month) for 60 days →**

1. Metformin XR 850mg BID
2. Vitamin D 20,000iu/day
3. CoQ10 200mg BID
4. Vitamin C 1g/day
5. L-arginine 1g/day
6. Magnesium 'multisalt' 1g/night
7. Omega 3 2g BID
8. Melatonin 'DUO' 1mg/night
  
9. Estradiol (identical) 1.8mg/night (topical)
10. Progesterone micronized (identical) 200mg/night (oral)
11. Testosterone (identical) 3.0mg/night (topical) – compounded

## **3rd treatment regimen MAINTAINED FOR additional 90 days →**

- +++ 12. Semaglutide 1mg/Weekly (11 'clicks' daily)



# CASE → WOMAN

## Response to 1<sup>st</sup> round of the 3<sup>rd</sup> treatment regimen →

1. Extreme fatigue → Improved significantly
- 2. Incapacitating brainfog → Complete remission**
3. Memory loss → Improved significantly
4. Attention disorder → Improved significantly
- 5. Depression → Complete remission**
- 6. Anxiety → Complete remission**
- 7. Sleep disorder → Complete remission**
8. Reduction in physical capacity → Improved significantly
9. Cough → Improved significantly
- 10. Nausea → Improved**
- 11. Irregular cycles → 'Improved' (stopped cycles)**
- 12. Hot flashes → Complete remission**
13. Vision loss → No further improvement
14. Weight gain → She lost additional 7kg/16lb (total 12kg/28lb)

## Response to 2<sup>nd</sup> round of the 3<sup>rd</sup> treatment regimen (MARCH/2023)→

1. Extreme fatigue → Complete remission
3. Memory loss → Complete remission
4. Attention disorder → Complete remission
8. Reduction in physical capacity → Complete remission
9. Cough → Complete remission
13. Vision loss → No further improvement
14. Weight gain → She lost additional 13kg/30lb (total 25kg/58lb)



# Post-1st and 2nd treatments -5th SARS-CoV-2 Spike Protein Contact

## Blood/Biochemical Exams of Interest

CASE → WOMAN

	Before 2020	Sep 2020	June 2022	Sep 2022	Dec 2022
<b>T-CD4</b> Lymphocytes (477-1141 /mm <sup>3</sup> )	770	812	528	679	626
<b>25(OH)D</b> (30-100 pg/mL)	26-52	33.0	47.0	187.0	132.2
<b>1,25(OH)D</b> (20-80 pg/mL)	56-89	38.4	18.5	23	43.3
<b>Noradrenaline</b> (400 pg/mL)	187-332	224	457	386	222
<b>Adrenaline</b> (<60 pg/mL)	<15-33	<15	40	45	18
<b>fT3</b> (2.3-4.2 pg/mL)	3.2-4.0	3.8	2.8	3.1	4.4
<b>rT3</b> (0.31-0.95 ng/mL)	-	0.43	0.88	0.75	0.29
<b>LH</b> (menopause > 16 miU/mL)	2.5-6.0	4.5	6.4	4.8	13.2
<b>FSH</b> (menopause > 23 miU/mL)	1.8-8.5	5.8	15.6	15.4	24.1
<b>Estradiol</b> (men. < 32.2 pg/mL)	80-220	138	44	50	132.3
<b>DHEA-S</b> (35-430 ug/dL)	110-185	191	55	52	78
<b>Total Testosterone</b> (10-48 ng/dL)	-	-	< 7	13	43.4
<b>IGF-1</b> (80-220 ng/mL)	-	-	57	133	250
<b>AMH</b> (ng/mL)	-	-	0.8	1.0	-
<b>ANA</b>	-	-	1/80 Speckled	negative	negative



# CASE → WOMAN

Take-home messages →

1. One size does not fit all →

The 'gold-standard' therapy may not be the best therapy for everyone.

2. Detecting hormonal issues is challenging, particularly in women

- Her estradiol levels would be 'within' normal range...

but, which were her levels prior to contacts with SARS-CoV-2 Spike Protein?

3. She progressed to biochemical menopause, regardless

4. We should not blame patients on their bad decisions.

ALLOW YOURSELF TO USE YOUR MEDICAL KNOWLEDGE

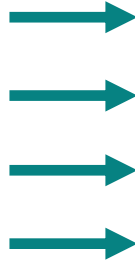


Time of follow-up → Since 2019 (4 Years)  
Age at start → 40 y/o  
Current age → 44 y/o

# CASE → MAN

## Pre-Spike Medical History

1. **Pre-Spike**  
Known Diseases
2. Pre-Spike  
Body Measures
3. Medications and  
Supplements
4. Blood exams and  
imaging



- 1<sup>st</sup> → **Obesity | BED | Anxiety**  
Pre-spike → **Pseudo-overweight**
- 1<sup>st</sup> → 124.3kg (274lb) | BMI 37.9kg/m<sup>2</sup> | 31.1%BF (Bio)  
Pre-spike → 90.5kg (199lb) | 27.6kg/m<sup>2</sup> | 18.4%BF  
Liraglutide 0.3mg/daily | Vyvanse 7mg/daily  
(‘Consolidation’ doses) + Vitamin D  
50,000iu/weekly
- Normal**

**Prophylactic ivermectin** 0.2mg/kg/day for 02 days, every 15 days since June/2020 →  
**No COVID-19 infections until June/2021** (+ Vitamin C 500mg/day + Zinc 30mg/day + Vitamin D 50,000iu/weekly)

## 1st SARS-CoV-2 Spike Protein Contact

1. **1st dose SARS-CoV-2 vaccine mRNA Pfizer → June/2021**
2. Symptoms → **Fever** → 03 days | **Muscle weakness and pain** → 07 days
3. Treatment → Metamizole (**Dipirone**) 1g every 6 hours for 03 days
4. **Post/Long-spike protein contact symptoms** →  
**Mild, unspecific fatigue** | **Reduced time-to-fatigue** during training sessions



## 2nd SARS-CoV-2 Spike Protein Contact

### 1. 1st COVID-19 infection → September/2021 Prophylactic ivermectin interrupted after vaccine →

He considered he'd be **protected by vaccine** and ivermectin would be no longer necessary

### 2. Symptoms →

1st Day – Extreme weakness, diffuse pain, low-grade fever → **He thought it was a flu** or cold because **he was 'protected from COVID-19' with vaccine**

3rd Day – Difficulty breathing and high-grade fever → He decided to test for COVID-19

### 3. Treatment (YES!) →

**High-dose ivermectin + dutasteride** + bromhexine + vitamin C + vitamin D + zinc + L-arginine + rivaroxaban

### 4. Post/Long-spike protein contact **symptoms** →

**Mild brainfog**  
**Moderate fatigue**

He **didn't look for treatments** for **post/long**-spike protein contact symptoms.



## 3rd SARS-CoV-2 Spike Protein Contact

1. **2nd dose SARS-CoV-2 vaccine mRNA Pfizer → October/2021**
  - He was told he should have the 2nd dose 30 days after COVID-19
  
2. Major post/long-spike protein contact symptoms (A complete disaster) →
  1. **Severe fatigue – incapacitating for everyday activities**
  2. **Work-related panic attacks**
  3. **Memory loss**
  4. **Anxiety**
  5. **Reduction in physical capacity**
  6. **Low libido**
  7. **Erectile dysfunction**
  8. **Palpitations**
  9. **Arthralgia**
  10. **Irritative bowel**

## Post- 3rd SARS-CoV-2 Spike Protein Contact Blood/Biochemical Exams of Interest (for the case)

	March 2019	Jan 2020	Oct 2021
<b>Hs-CRP</b> (< 1.0 mg/L)	7.8	1.5	0.9
<b>D-dimer</b> (< 500 ng/mL FEU)	660	440	750
<b>Homocysteine</b> (5-12 umol/L)	11.4	17.6	12.8
<b>25(OH)D</b> (30-100 pg/mL)	18.5	36.2	62.9
<b>1,25(OH)D</b> (20-80 pg/mL)	47	68	27
<b>LH</b> (1.5-9.3 miU/mL)	2.2	3.4	3.4
<b>FSH</b> (1.4-18.1 miU/mL)	6.3	7.7	7.7
Total <b>testosterone</b> (246-840 ng/dL)	223	485	201
<b>Estradiol</b> (< 39.8 pg/mL)	27.4	33.8	21.2
<b>SHBG</b> (11.5-54.5 nmol/L)	10.5	23.4	27.5
<b>TNF-alpha</b> (<8.1 pg/mL)	-	-	9.8
<b>IL-6</b> (<7.0 pg/mL)	-	-	6.5
<b>IGF-1</b> (80-220 ng/mL)	77	156	103





# CASE → MAN

## 3rd SARS-CoV-2 Spike Protein Contact

**1st treatment regimen for 60 days (October/2021) →**

1. Ivermectin 18mg/day
2. Vitamin D 10,000iu/day
3. Vitamin C 1g/day
4. L-arginine 1g/day
5. Tadalafil 5mg/day
6. Curcumin 1g/day
7. N-Acetyl-Cysteine 600mg/day
8. CoQ10 100mg/day
9. Bifidobacterium multistrain 25bi/day
10. Methylcobalamine 5mg/day
11. Methylfolate 5mg/day
12. Pyridoxal-5-Phosphate 20mg/day
13. Melatonin 3mg/night



# CASE → MAN

## 3rd SARS-CoV-2 Spike Protein Contact

### 1st treatment regimen for 60 days (October/2021) →

1. Ivermectin 18mg/day
2. Vitamin D 10,000iu/day
3. Vitamin C 1g/day
4. L-arginine 1g/day
5. Tadalafil 5mg/day
6. Curcumin 1g/day
7. N-Acetyl-Cysteine 600mg/day
8. CoQ10 100mg/day
9. Bifidobacterium multistrain 25bi/day
10. Methylcobalamine 5mg/day
11. Methylfolate 5mg/day
12. Pyridoxal-5-Phosphate 20mg/day
13. Melatonin 3mg/night

### 2nd treatment regimen for 60 days (December/2021) →

14. Testosterone undecanoate 1000mg (Day 0 | 15 | 60)  
- Testosterone salts are still 'natural' testosterone!



Search Wikipedia

#### Testosterone undecanoate

Testosterone undecanoate is a **testosterone ester** and a **prodrug** of **testosterone** in the body.<sup>[8][7][5]</sup> Because of this, it is considered to be a natural and bioidentical form of testosterone.<sup>[15]</sup>

Brazil 1,000mg – US\$ 45  
USA 750mg – US\$ 1,795



## 3rd SARS-CoV-2 Spike Protein Contact

Response to 2nd treatment regimen at Days 30 and 60 →

- 1. Severe fatigue → Full remission**
2. Work-related panic attacks → Moderate improvement
- 3. Memory loss → Full remission**
- 4. Anxiety → Almost full remission**
- 5. Reduction in physical capacity → Full remission**
- 6. Low libido → Full remission**
- 7. Erectile dysfunction → Full remission**
- 8. Palpitations → Full remission**
9. Arthralgia → Moderate improvement
10. Irritative bowel → Substantial improvement

- Psychotherapy recommended.

## Post- 3rd SARS-CoV-2 Spike Protein Contact Blood/Biochemical Exams of Interest (for the case)

	March 2019	Jan 2020	Oct 2021	Feb 2022
<b>Hs-CRP</b> (< 1.0 mg/L)	7.8	1.5	0.9	0.3
<b>D-dimer</b> (< 500 ng/mL FEU)	660	440	750	<215
<b>Homocysteine</b> (5-12 umol/L)	11.4	17.6	12.8	6.7
<b>25(OH)D</b> (30-100 pg/mL)	18.5	36.2	62.9	136.5
<b>1,25(OH)D</b> (20-80 pg/mL)	47	68	27	104.3
<b>LH</b> (1.5-9.3 miU/mL)	2.2	3.4	3.4	<0.5
<b>FSH</b> (1.4-18.1 miU/mL)	6.3	7.7	7.7	<0.3
Total <b>testosterone</b> (246-840 ng/dL)	223	485	201	865
<b>Estradiol</b> (< 39.8 pg/mL)	27.4	33.8	21.2	57.9
<b>SHBG</b> (11.5-54.5 nmol/L)	10.5	23.4	27.5	18.3
<b>TNF-alpha</b> (<8.1 pg/mL)	-	-	9.8	5.5
<b>IL-6</b> (<7.0 pg/mL)	-	-	6.5	1.5
<b>IGF-1</b> (80-220 ng/mL)	77	156	103	284

# CASE → MAN

## 3rd SARS-CoV-2 Spike Protein Contact

**2nd step of the 2nd treatment - 90 days (February/2022) →**

**3rd step of the 2nd treatment - 120 days (May/2022) →**

1. Ivermectin 18mg once/weekly
2. Vitamin D 5,000iu/day
3. Tadalafil 5mg every other day
4. Bifidobacterium multistrain 5bi/day
5. Methylcobalamine 1mg/day
6. Methylfolate 1mg/day
7. Pyridoxal-5-Phosphate 10mg/day
8. Melatonin 3mg/night
9. Testosterone undecanoate 1000mg every 60 days

Response to 2nd step of the 2nd treatment regimen at Day 90 (May/2022) →

1. **Work-related panic attacks → Full remission**
2. **Arthralgia → Full remission**
3. **Irritative bowel → Full remission**

**No new symptoms. No symptoms.**

Response to 3rd step of the 2nd treatment regimen at Day 120 (Sep/2022) →

**No symptoms.**



## Post- 3rd SARS-CoV-2 Spike Protein Contact Blood/Biochemical Exams of Interest (for the case)

	March 2019	Jan 2020	Oct 2021	Feb 2022	Sep 2022
<b>Hs-CRP</b> (< 1.0 mg/L)	7.8	1.5	0.9	0.3	0.07
<b>D-dimer</b> (< 500 ng/mL FEU)	660	440	750	<215	<215
<b>Homocysteine</b> (5-12 umol/L)	11.4	17.6	12.8	6.7	7.4
<b>25(OH)D</b> (30-100 pg/mL)	18.5	36.2	62.9	136.5	67.0
<b>1,25(OH)D</b> (20-80 pg/mL)	47	68	27	104.3	70.1
<b>LH</b> (1.5-9.3 miU/mL)	2.2	3.4	3.4	<0.5	0.6
<b>FSH</b> (1.4-18.1 miU/mL)	6.3	7.7	7.7	<0.3	0.4
Total <b>testosterone</b> (246-840 ng/dL)	223	485	201	865	759
<b>Estradiol</b> (< 39.8 pg/mL)	27.4	33.8	21.2	57.9	48.3
<b>SHBG</b> (11.5-54.5 nmol/L)	10.5	23.4	27.5	18.3	21.8
<b>TNF-alpha</b> (<8.1 pg/mL)	-	-	9.8	5.5	-
<b>IL-6</b> (<7.0 pg/mL)	-	-	6.5	1.5	-
<b>IGF-1</b> (80-220 ng/mL)	77	156	103	284	-



# CASE → MAN

## 3rd SARS-CoV-2 Spike Protein Contact

4th step of the 2nd treatment - 180 days (September/2022) →

1. Vitamin D 25,000iu/week
2. Melatonin 1mg/night
3. Testosterone undecanoate 1000mg every 90 days

## 4th SARS-CoV-2 Spike Protein Contact

1. 2nd COVID-19 infection → December/2022

2. Treatment (YES!) →

Ivermectin 18mg/day for 03 days + Nitazoxanide 500mg TID for 05 days + Azithromycin 500mg/day for 05 days + Vitamin C 4g/day for 05 days

3. Symptoms →

Sore throat - Mild  
Cough - Mild  
Flu-like symptoms - Mild  
Duration → 03 days

4. Post/Long-COVID symptoms → None



## Take-home messages →

1. Factors such as cost of treatment and number of capsules per day on the long term must be considered

2. Decreased testosterone-to-estradiol (T:E) ratio demonstrates abnormally increased aromatase activity due to metabolic and inflammatory disorders

3. Aromatase inhibitors are not always necessary

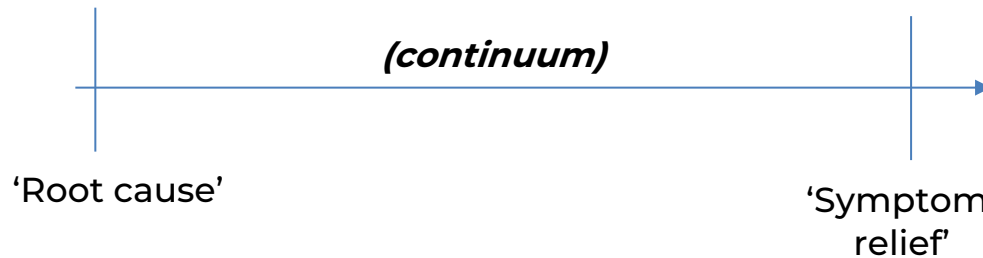
- a. Allowing T:E ratio freely to indicate health status
- b. Increased E2 is beneficial for men when followed by increased T



1. Women suffer > 50% plus than men  
from SARS-CoV-2 spike-related diseases

2. Post-COVID obesity –  
Not fully explained by post-menopause reduction of metabolism

3. Where are we when we use hormones?




# REFLECTIONS AT MULTIPLE LEVELS

1. Clinical response versus biochemical response
2. What would I have done in the case of lack of access to all these exams?
3. a. Be careful not to become what you have most disliked:  
the authoritarian method of exposing your 'arguments' – you may stop listening to others.  
b. We are all angry with the authoritarian and gaslighting-accusing  
manner of suppression of scientific discussion as a method of imposing an agenda.  
c. However, our response should not be just an angry mirror of their dirty methods.
4. When results are good, there is no need to hide the data or to impose.
5. In terms of bioethics, detecting risks is not 'required' to demonstrate that  
COVID-19 'vaccines' were wrong –  
Not fully disclosure of the inherent uncertainty of their long-term effects would be,  
alone, sufficient to be considered a severe violation of the true bioethics principles
6. Is there a war between different industries?  
→ Big Pharma Evil → → Big Pharma Consciousness
7. The USA needs a deep debate on the prices of medications





# REFLECTIONS AT MULTIPLE LEVELS

8. Journals and editors have behaved in an abusive manner.  
Journals and editors no longer publish according to scientific standards.  
The most prestigious journal in the world does not analyze the data they publish.  
Journals and editors shape and control what will be called 'science'.  
And who truly controls journals and editors' (mis)conducts, abuses, and promiscuity?

 **Alexander Muacevic**  
para mim, Graham ▾  
Dear Dr. Cadegiani,  
  
thank you for your recent submission: 'COVID-19 In-Hospital Mortality Rate is Reduced and Liver and Kidneys are Protected by Prophylactic Use of Ivermectin: Findings From a Subset Population of a City-Wide, Prospective Observational Study Using Propensity Score Matching (PSM)'  
  
After our internal editorial board discussion we decided not to proceed with your submission. Given the still very controversial discussions on Ivermectin use in COVID-19 we are not favorable for more Cureus related discussions on this subject.  
  
We hope you will find another good journal for your data and hope you are not too disappointed with our decision.  
  
Thank you for your interest in Cureus and kind regards,

Alexander Muacevic, MD  
EIC Cureus

 **Rubin, Eric** <erubin@hsph.harvard.edu>  
para mim ▾  
Dear Dr. Cadegiani,  
  
It's simple - the results are unexpectedly good. Given how good they are, the reviewers felt that the data needed a primary review. We simply don't have the capacity to do that but I strongly suspect that other journals will be interested, though I don't know if they will require the same level of review.  
  
Eric



 **Rubin, Eric** <erubin@hsph.harvard.edu>  
para mim ▾  
Dear Dr. Cadegiani,  
  
Thanks for reaching out and for giving us an opportunity to review your work. Although you responded to the comments that the reviewers chose to share, the major concern of all of the reviewers, which was shared by the editors, was that the primary raw data needed to be reviewed. We simply do not have the capacity to that. Given that concern, we feel that you're better off going elsewhere with the work. It certainly is interesting and I'm confident that you can find a good home for it. Good luck.  
  
Eric



SHORT COMMUNICATION | [VOLUME 170, P39-41, APRIL 2023](#)

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## Effect of menopausal hormone therapy on COVID-19 severe outcomes in women – A population-based study of the US National COVID Cohort Collaborative (N3C) data

Yilin Yoshida   • [San Chu](#) • [Yuanhao Zu](#) • [Sarah Fox](#) • [Franck Mauvais-Jarvis](#) •

### Highlights

- Menopausal hormone therapy may lessen the severity of COVID-19.
- The use of menopausal hormone therapy was associated with a marginally lower risk of COVID-19 mortality in inpatients.
- The use of menopausal hormone therapy was also associated with a significantly reduced risk of prolonged hospital stay.



# WOMEN

EMAS 2021 ORAL SESSIONS | VOLUME 152, P74, OCTOBER 2021

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## Long Covid and menopause - the important role of hormones in Long Covid must be considered

Louise Newson  • Rebecca Lewis • Margaret O'Hara

DOI: <https://doi.org/10.1016/j.maturitas.2021.08.026>

The Lancet Regional Health - Europe 11 (2021) 100242

Contents lists available at [ScienceDirect](#)

### The Lancet Regional Health - Europe

journal homepage: [www.elsevier.com/lanep](http://www.elsevier.com/lanep)




Commentary

### Long COVID risk - a signal to address sex hormones and women's health

Stuart Stewart<sup>a,b,\*</sup>, Louise Newson<sup>c</sup>, Tracy A Briggs<sup>d,e</sup>, Dimitris Grammatopoulos<sup>f,g</sup>, Lawrence Young<sup>f</sup>, Paramjit Gill<sup>f</sup>

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## Effect of menopausal hormone therapy on COVID-19 severe outcomes in women – A population-based study of the US National COVID Cohort Collaborative (N3C) data

Yilin Yoshida   • San Chu • Yuanhao Zu • Sarah Fox • Franck Mauvais-Jarvis •

## PHYSIOLOGICAL REPORTS

ORIGINAL RESEARCH |  Open Access |  

### 17 $\beta$ -estradiol reduces SARS-CoV-2 infection in vitro

Robertha Mariana Rodrigues Lemes, Angelica Jardim Costa, Cynthia Silva Bartolomeo, Taysa Bervian Bassani, Michelle Sayuri Nishino, Gustavo Jose da Silva Pereira ... [See all authors](#) 

First published: 19 January 2021 | <https://doi.org/10.14814/phy2.14707> | Citations: 26

Carla Máximo Prado, Roberta Sessa Stilhano and Rodrigo Portes Ureshino: Joint senior authors.

ORIGINAL RESEARCH article

Front. Med., 24 October 2022  
Sec. Infectious Diseases – Surveillance, Prevention and Treatment  
Volume 9 - 2022 | <https://doi.org/10.3389/fmed.2022.1036556>

This article is part of the Research Topic  
Global Spread and Prediction of COVID-19  
Pandemic  
[View all 22 Articles >](#)

### Lifestyle, course of COVID-19, and risk of Long-COVID in non-hospitalized patients

 Magdalena Plywaczewska-Jakubowska<sup>1</sup>,  Michał Chudzik<sup>1</sup>,  Mateusz Babicki<sup>2\*</sup>,  
 Joanna Kapusta<sup>3</sup> and  Piotr Jankowski<sup>1</sup>



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8561426/>  
[https://www.maturitas.org/article/S0378-5122\(21\)00174-2/fulltext](https://www.maturitas.org/article/S0378-5122(21)00174-2/fulltext)  
<https://physoc.onlinelibrary.wiley.com/doi/10.14814/phy2.14707>  
<https://menopauseexperts.com/long-covid-menopause/>  
<https://www.frontiersin.org/articles/10.3389/fmed.2022.1036556/full>

> *Andrology*. 2022 Jan;10(1):34-41. doi: 10.1111/andr.13097. Epub 2021 Aug 31.

## Testosterone in males with COVID-19: A 7-month cohort study

Andrea Salonia <sup>1,2</sup>, Marina Pontillo <sup>3</sup>, Paolo Capogrosso <sup>1,4</sup>, Silvia Gregori <sup>5</sup>, Cristina Carezzi <sup>1</sup>, Anna Maria Ferrara <sup>1</sup>, Isaline Rowe <sup>1</sup>, Luca Boeri <sup>1,6</sup>, Alessandro Larcher <sup>1</sup>, Giuseppe A Ramirez <sup>2,7</sup>, Cristina Tresoldi <sup>8</sup>, Massimo Locatelli <sup>3</sup>, Giulio Cavalli <sup>2,7</sup>, Lorenzo Dagna <sup>2,7</sup>, Antonella Castagna <sup>2,8</sup>, Alberto Zangrillo <sup>2,10</sup>, Moreno Tresoldi <sup>11</sup>, Giovanni Landoni <sup>2,10</sup>, Patrizia Rovere-Querini <sup>2,12</sup>, Fabio Ciceri <sup>2,13</sup>, Francesco Montorsi <sup>1,2</sup>

**Conclusions:** Although total testosterone levels increased over time after COVID-19, more than 50% of men who recovered from the disease still had circulating testosterone levels suggestive for a condition of hypogonadism at 7-month follow-up. In as many as 10% of cases, testosterone levels even further decreased. Of clinical relevance, the higher the burden of comorbid conditions at presentation, the lower the probability of testosterone levels recovery over time.



# My Story: HRT and Long Covid

**Here we share an account from a woman who has been experiencing Long Covid. She describes how her untreated perimenopausal symptoms significantly worsened after having Covid-19. Her story offers hope to the many women diagnosed with Long Covid who are in their 40s and 50s, and the remarkable benefits made possible by HRT.**

“I started taking HRT in January 2021, after a 9-month battle with Long Covid symptoms following my Covid-19 experience in March 2020. I’m 48 now and had already been experiencing worsening perimenopause symptoms since my mid 40’s. I had been turned away by various GPs in the last few years regarding these symptoms, stating I was ‘too young’ and had regular periods so couldn’t be perimenopausal.

“Almost instantly my perimenopausal symptoms of anxiety and depression went away. I started sleeping better, with no night-time waking. My regular hormonal migraines stopped, I didn’t need to go to the loo all the time and my mood is more stable throughout the month. My memory has improved along with my ability to multi-task, my desire for sex has come back and the pre-period skin itching I would get has stopped. My aching hips and knees no longer ache and relationships with my family have greatly improved. Basically, I can cope with life again.

“With regards, to my Long Covid Symptoms it is hard to separate all the improvements as a lot of the symptoms cross over, but I feel it is important to note that I had a significant worsening of my perimenopause symptoms since getting Covid-19 and had a significant improvement in them since starting HRT. I also had a continuing tightness in my chest which has seen an improvement over the last few months.

“My energy levels have steadily improved since January, along with my brain fog, ability to focus and my capacity to exercise without experiencing ‘post-exertional malaise’. I now regularly swim 1 km in the sea, and go running, as well as just being able to go about my normal day. I can have a long, busy day and not need to sleep the next day. Before starting HRT in January, I was slowly recovering and doing more in little increments, but I still had to be VERY careful with exercise and needed to rest a lot. My husband works away in the film industry, and I was unable to cope with the demands of looking after my two children for days on my own. He was turning down work to give me time to rest in between his jobs.

“While I was improving very slowly physically, over the months since May 2020, my brain fog and ability to focus did not improve until I started taking HRT. The testosterone has in my mind been the key in these particular improvements. I believe this because the oestrogen had an immediate effect on many symptoms but I have seen a more gradual improvement in my brain fog, tiredness, energy levels, stamina and ability to exercise. This started about three months after starting HRT and has continued to improve to date.

“I have been left with a long term lung condition (mild bronchiectasis) which I need to take a steroid inhaler for daily, but otherwise I consider myself to have made a complete recovery from my Long Covid symptoms.

“This complete recovery did not happen until I started taking HRT.”



# CONCLUSIONS

1. The world faces a classic homonophobic culture.

2. Hormones, when needed, should be placed at the level of preventive approaches, since their use mostly prevent diseases, while improve overall QoL.

3. In SARS-CoV-2 spike protein diseases, while hormones should not be 1st line therapy, they should be considered in selected cases.

4. Like hormones, there are many other treatment modalities waiting to be employed for SARS-CoV-2 spike protein diseases.

5. Untreated COVID-19 is perhaps almost as bad as SARS-CoV-2 'vacines' due to an unblocked contact with Spike Protein







**THANK YOU**

