

Covid Vaccines Increase Risk of Severe Heart Inflammation Up to 120-Fold, Major Study Finds



Covid vaccination increases the risk of severe heart inflammation up to 120-fold, a major [study](#) from Scandinavia published in the *Journal of the American Medical Association (JAMA)* has found.

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The study looked at over 23 million patient records covering the over-12s populations of Denmark, Finland, Norway and Sweden from the start of the vaccine rollout in December 2020 to October 5th 2021.

For young males aged 16-24 years within 28 days of a second dose the study found severe myocarditis (requiring inpatient hospital admission) around five times more common after Pfizer and 14 times more common after Moderna. This corresponded to six events per 100,000 people after Pfizer and 18 events per 100,000 after Moderna. A second dose of Moderna given after a first dose of Pfizer came with even higher risk: a 36-fold increased risk, corresponding to 27 events per 100,000 people. The Moderna vaccine has three times the dose of mRNA of the Pfizer vaccine, which the authors suggest lies behind the increased risk.

One oddity is that the study can't seem to decide how many severe myocarditis events there actually were in total. In Table 2 below, in the left hand column, it indicates there were $85 + 34 + 53 = 172$ events following a second dose.

Table 2. Myocarditis Within 28 Days After a Dose of SARS-CoV-2 Vaccine^a

Subgroup, exposure ^b	No. of events ^c	Follow-up, 1000 person-years	Crude incidence rate per 1000 person-years of follow-up ^d	IRR (95% CI)	No. of excess events in 28 d per 100 000 vaccinees (95% CI)
Males, ages ≥ 12 y					
Unvaccinated	520	5340.6	0.097	1 [Reference]	0 [Reference]
AZD1222	6	43.0	0.139	2.39 (1.04 to 5.48)	0.62 (0.00 to 1.24)
AZD1222/AZD1222	≤ 5	29.2	ND	1.29 (0.31 to 5.33)	0.12 (-0.48 to 0.72)
BNT162b2	70	560.9	0.125	1.40 (1.09 to 1.80)	0.27 (0.09 to 0.46)
BNT162b2/BNT162b2	85	495.0	0.172	2.04 (1.61 to 2.58)	0.67 (0.46 to 0.88)
BNT162b2/mRNA-1273	34	23.7	1.433	16.99 (11.51 to 25.07)	10.34 (6.86 to 13.83)
mRNA-1273	13	93.2	0.139	1.45 (0.84 to 2.52)	0.33 (-0.11 to 0.78)
mRNA-1273/mRNA-1273	53	72.3	0.733	8.55 (6.40 to 11.41)	4.97 (3.62 to 6.32)

In the text, however, it says:

During the 28-day risk period, we observed 105 myocarditis cases following administration of the first dose of BNT162b2 [Pfizer] and 115 myocarditis cases following the second dose. We also observed 15 myocarditis cases following administration of the first dose of mRNA-1273 [Moderna] and 60 myocarditis cases following the second dose.

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That gives $115 + 60 = 175$ events following the second dose. Yet lower down we get a third figure: “Of the 213 myocarditis cases in the 28-day risk window after a second dose of SARS-CoV-2 mRNA vaccination, 135 events occurred within the first week.”

So how many cases of severe myocarditis were there within 28 days of a second mRNA vaccine dose – 172, 175 or 213?

Using the larger figure, the authors observe that with 135 of 213 occurring within the first week – more than half – the risk in that week is greatly elevated. Among males aged 16 to 24 years, the risk was around 13-fold greater during the week after a second dose of Pfizer and 38-fold greater after a second dose of Moderna. For a second dose of Moderna where the first dose was Pfizer the risk was 120-fold greater.

It's worth noting that the bar for myocarditis here is very high, excluding even those who receive medical attention as a hospital outpatient, let alone anything milder; even the milder cases, however, may cause long-term damage.

The study found that the severe myocarditis risk following Covid infection was negligible, with only around one excess event per 100,000 within 28 days of infection and a confidence interval that included zero.

For some reason the study did not look at the risk outside the 28-day post-vaccination window, so we don't know whether the elevated risk continues past that period.

It's worth bearing in mind that the risk estimates are adjusted estimates based on modelling that takes into account potential confounding factors: sex, age group, health care worker status, nursing home resident and certain listed comorbidities. The unadjusted risk estimates are not stated, and we do not know how sound the adjustments are. It's not clear why it was necessary to use modelling to adjust for these factors rather than, say, simply providing results stratified by sex and age and with health care workers, nursing home residents and people with comorbidities excluded, at least from some of the results. Modelled adjustments are often opaque, especially when unadjusted estimates aren't provided, whereas stratified findings are usually clear.

The results were summarised as follows:

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Among 23,122,522 Nordic residents (81% vaccinated by study end; 50.2% female), 1,077 incident myocarditis events and 1,149 incident pericarditis events were identified. Within the 28-day period, for males and females 12 years or older combined who received a homologous schedule [two vaccine doses of the same type], the second dose was associated with higher risk of myocarditis, with adjusted IRRs [incidence rate ratios] of 1.75 (95% CI [confidence interval], 1.43-

2.14) for BNT162b2 [Pfizer] and 6.57 (95% CI, 4.64-9.28) for mRNA-1273 [Moderna]. Among males 16 to 24 years of age, adjusted IRRs were 5.31 (95% CI, 3.68-7.68) for a second dose of BNT162b2 and 13.83 (95% CI, 8.08-23.68) for a second dose of mRNA-1273, and numbers of excess events were 5.55 (95% CI, 3.70-7.39) events per 100,000 vaccinees after the second dose of BNT162b2 and 18.39 (9.05-27.72) events per 100,000 vaccinees after the second dose of mRNA-1273. Estimates for pericarditis were similar.

Here's the complete table of results for severe myocarditis in the 28-day window. Note that the risk is considerably elevated for many subgroups, particularly for males under 40 (not just aged 16-24) following a second Moderna dose, but also in other cases too. However, the wide confidence intervals make the findings uncertain in many subgroups outside males under 40.

Table 2. Myocarditis Within 28 Days After a Dose of SARS-CoV-2 Vaccine^a

Subgroup, exposure ^b	No. of events ^c	Follow-up, 1000 person-years	Crude incidence rate per 1000 person-years of follow-up ^d	IRR (95% CI)	No. of excess events in 28 d per 100 000 vaccinees (95% CI)
Males, ages ≥12 y					
Unvaccinated	520	5340.6	0.097	1 [Reference]	0 [Reference]
AZD1222	6	43.0	0.139	2.39 (1.04 to 5.48)	0.62 (0.00 to 1.24)
AZD1222/AZD1222	≤5	29.2	ND	1.29 (0.31 to 5.33)	0.12 (-0.48 to 0.72)
BNT162b2	70	560.9	0.125	1.40 (1.09 to 1.80)	0.27 (0.09 to 0.46)
BNT162b2/BNT162b2	85	495.0	0.172	2.04 (1.61 to 2.58)	0.67 (0.46 to 0.88)
BNT162b2/mRNA-1273	34	23.7	1.433	16.99 (11.51 to 25.07)	10.34 (6.86 to 13.83)
mRNA-1273	13	93.2	0.139	1.45 (0.84 to 2.52)	0.33 (-0.11 to 0.78)
mRNA-1273/mRNA-1273	53	72.3	0.733	8.55 (6.40 to 11.41)	4.97 (3.62 to 6.32)
Males, ages 16-24 y					
Unvaccinated	149	794.6	0.188	1 [Reference]	0 [Reference]
AZD1222	0	0.70	ND	ND	ND
AZD1222/AZD1222	0	0.10	ND	ND	ND
BNT162b2	24	63.9	0.376	2.16 (1.40 to 3.33)	1.55 (0.70 to 2.39)
BNT162b2/BNT162b2	37	41.5	0.891	5.31 (3.68 to 7.68)	5.55 (3.70 to 7.39)
BNT162b2/mRNA-1273	17	4.6	3.687	35.62 (18.87 to 67.25)	27.49 (14.41 to 40.56)
mRNA-1273	≤5	11.5	ND	2.90 (1.05 to 7.97)	1.75 (-0.20 to 3.71)
mRNA-1273/mRNA-1273	15	5.8	2.584	13.83 (8.08 to 23.68)	18.39 (9.05 to 27.72)
Males, ages 25-39 y					
Unvaccinated	146	1440.6	0.101	1 [Reference]	0 [Reference]
AZD1222	0	3.1	ND	ND	ND
AZD1222/AZD1222	0	0.5	ND	ND	ND
BNT162b2	17	109.2	0.156	1.62 (0.94 to 2.80)	0.46 (0.00 to 0.92)
BNT162b2/BNT162b2	15	83.9	0.179	1.75 (1.03 to 2.99)	0.59 (0.07 to 1.10)
BNT162b2/mRNA-1273	15	9.7	1.543	23.16 (12.60 to 42.59)	11.33 (5.59 to 17.07)
mRNA-1273	≤5	30.6	ND	1.27 (0.40 to 3.99)	0.16 (-0.55 to 0.86)
mRNA-1273/mRNA-1273	26	23.0	1.132	12.96 (8.23 to 20.42)	8.01 (4.92 to 11.11)
Males, ages ≥40					
Unvaccinated	206	2657.6	0.078	1 [Reference]	0 [Reference]
AZD1222	6	39.3	0.153	2.30 (0.99 to 5.33)	0.66 (-0.02 to 1.34)
AZD1222/AZD1222	≤5	28.6	ND	1.24 (0.30 to 5.18)	0.10 (-0.53 to 0.74)

BNT162b2	27	375.8	0.072	0.93 (0.62 to 1.40)	-0.04 (-0.28 to 0.20)
BNT162b2/BNT162b2	31	363.6	0.085	1.08 (0.74 to 1.57)	0.05 (-0.19 to 0.28)
BNT162b2/mRNA-1273	≤5	9.4	ND	3.54 (0.85 to 14.79)	1.17 (-0.58 to 2.93)
mRNA-1273	6	48	0.125	1.89 (0.84 to 4.28)	0.45 (-0.10 to 1.00)
mRNA-1273/mRNA-1273	11	43.3	0.254	3.45 (1.87 to 6.35)	1.38 (0.50 to 2.27)
Females, ages ≥12 y					
Unvaccinated	211	4942.2	0.043	1 [Reference]	0 [Reference]
AZD1222	≤5	64.1	ND	1.87 (0.58 to 6.03)	0.17 (-0.13 to 0.46)
AZD1222/AZD1222	≤5	31.6	ND	1.67 (0.40 to 6.97)	0.19 (-0.30 to 0.69)
BNT162b2	35	572.3	0.061	1.46 (1.01 to 2.11)	0.15 (0.02 to 0.28)
BNT162b2/BNT162b2	30	522.7	0.057	1.25 (0.77 to 2.05)	0.09 (-0.09 to 0.26)
BNT162b2/mRNA-1273	≤5	19.1	ND	9.62 (3.11 to 29.77)	1.44 (0.02 to 2.87)
mRNA-1273	≤5	90	ND	1.45 (0.35 to 5.97)	0.05 (-0.13 to 0.23)
mRNA-1273/mRNA-1273	7	71.6	0.098	2.73 (1.27 to 5.87)	0.48 (0.07 to 0.89)
Females, ages 16-24 y					
Unvaccinated	31	707.1	0.044	1 [Reference]	0 [Reference]
AZD1222	0	2.4	ND	ND	ND
AZD1222/AZD1222	0	0.3	ND	ND	ND
BNT162b2	≤5	63.2	ND	1.98 (0.56 to 7.01)	0.18 (-0.13 to 0.49)
BNT162b2/BNT162b2	≤5	43.9	ND	2.86 (1.10 to 7.48)	0.57 (-0.01 to 1.15)
BNT162b2/mRNA-1273	≤5	4	ND	71.70 (15.10 to 340.36)	3.74 (-1.45 to 8.93)
mRNA-1273	0	10.7	ND	ND	ND
mRNA-1273/mRNA-1273	0	6	ND	ND	ND
Females, ages 25-39 y					
Unvaccinated	42	1269.7	0.033	1 [Reference]	0 [Reference]
AZD1222	0	8.8	ND	ND	ND
AZD1222/AZD1222	0	1.3	ND	ND	ND
BNT162b2	≤5	105	ND	2.35 (0.90 to 6.12)	0.21 (-0.03 to 0.45)
BNT162b2/BNT162b2	≤5	85	ND	2.35 (0.89 to 6.25)	0.26 (-0.04 to 0.55)
BNT162b2/mRNA-1273	0	7.5	ND	ND	ND
mRNA-1273	0	27.7	ND	ND	ND
mRNA-1273/mRNA-1273	≤5	21	ND	7.31 (2.16 to 24.78)	0.95 (-0.14 to 2.03)
Females, ages ≥40 y					
Unvaccinated	137	2541.6	0.054	1 [Reference]	0 [Reference]
AZD1222	≤5	52.9	ND	ND	ND
AZD1222/AZD1222	≤5	30	ND	ND	ND
BNT162b2	27	392.5	0.069	1.37 (0.90 to 2.08)	0.14 (-0.03 to 0.31)
BNT162b2/BNT162b2	20	388.1	0.052	1.02 (0.63 to 1.65)	0.01 (-0.18 to 0.20)
BNT162b2/mRNA-1273	≤5	7.5	ND	8.12 (1.83 to 36.00)	1.79 (-0.72 to 4.29)
mRNA-1273	≤5	48.5	ND	4.68 (0.60 to 36.45)	0.12 (-0.13 to 0.38)
mRNA-1273/mRNA-1273	≤5	44.4	ND	3.03 (1.10 to 8.31)	0.46 (-0.05 to 0.97)

Abbreviations: IRR, adjusted incidence rate ratio; mRNA, messenger RNA; ND, not determined.

^a The IRRs and excess events in 28 days per 100 000 vaccinees, according to sex and age. The IRRs for model 2, adjusted for age group, sex, previous SARS-CoV-2 infection, health care worker status, nursing home resident, and comorbidity variables; for other models see eFigure 2 and eTable 5 in the [Supplement](#).

^b Vaccine doses listed in sequential order.

^c On rows without cases, only follow-up data are shown.

^d On rows with 5 or fewer cases, incident rate is not given.

The authors conclude the risks “should be balanced against the benefits of protecting against severe COVID-19 disease”. However, given the extremely low risk of Covid to healthy young males and the considerably elevated risk of severe myocarditis following vaccination – plus the risks associated with other adverse effects, short and long term – it’s hard to see how it could be worth it, or why these vaccines have not already been withdrawn for younger age groups.

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By [Will Jones](#) / 24 April 2022 • 07.00

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126 COMMENTS



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**Vaxtastic** ⌚ 1 day ago

Surely sceptics can now state with a degree of confidence that the vaccination campaign here in the UK was really a test of compliance.

The compliant were therefore subjected to two experiments; one to gauge their level of compliance to authority; the second to test the efficacy of experimental drugs.

A scandal, but one I suspect most will be keen to overlook.

👍 228 -2 🗨️

**Fortyman** ⌚ 1 day ago| 🗨️ Reply to [Vaxtastic](#)

And maybe that is why there is no incandescent outrage at what has been done to them/us.. I find it hard to understand why I seem to be the only person I actually know, who feels like this.

👍 107 -2 🗨️

**stewart** ⌚ 1 day ago| 🗨️ Reply to [Fortyman](#)

I think it is becoming increasingly clear that the freedom and liberalism of the last 50 or so years has been an exceptional blip in the otherwise long arc of history of humans being trampled by power and authority and quietly putting up with it.

👍 125 -1 🗨️

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