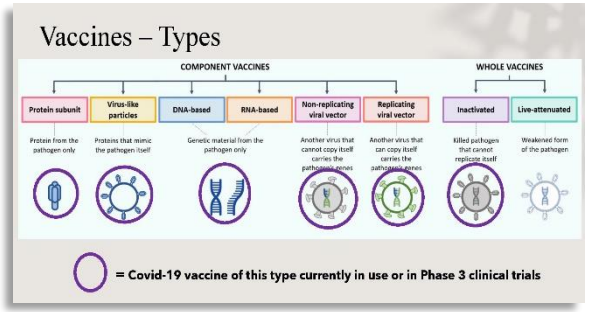
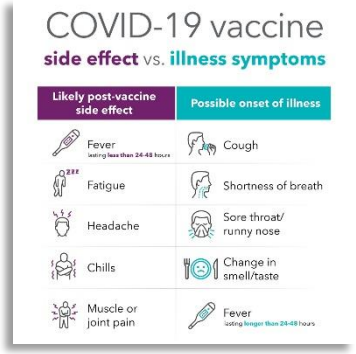
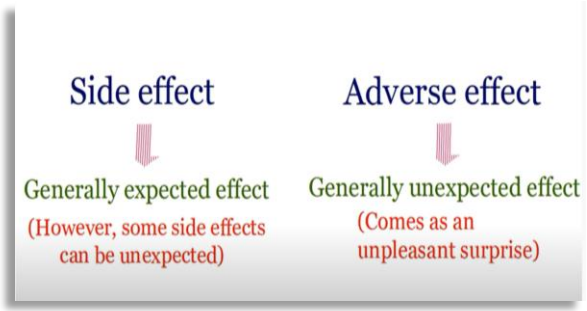
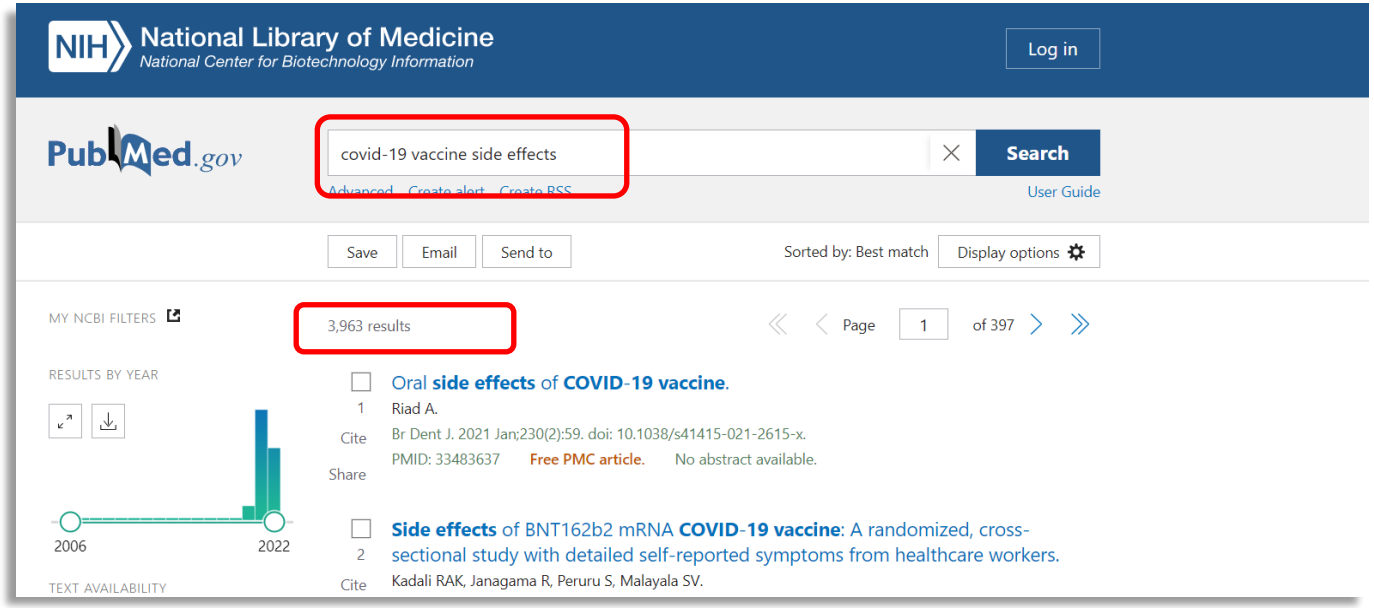






Aşı Yan Etkileri Kanıt mı, Kanaat mi?

Dr. R. Aytaç ÇETİNKAYA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RESULTS BY YEAR
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Oral side effects of COVID-19 vaccine.
Riad A.
Br Dent J. 2021 Jan;230(2):59. doi: 10.1038/s41415-021-2615-x.
PMID: 33483637 Free PMC article. No abstract available.
2 Cite
Side effects of BNT162b2 mRNA COVID-19 vaccine: A randomized, cross-sectional study with detailed self-reported symptoms from healthcare workers.
Kadali RAK, Janagama R, Peruru S, Malayala SV.


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RESULTS BY YEAR
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COVID-19 vaccines: comparison of biological, pharmacological characteristics and adverse effects of Pfizer/BioNTech and Moderna Vaccines.
Meo SA, Bukhari IA, Akram J, Meo AS, Klonoff DC.
Eur Rev Med Pharmacol Sci. 2021 Feb;25(3):1663-1669. doi: 10.26355/eurrev_202102_24877.
PMID: 33629336 Free article. Review.
The key terms used were: Coronavirus, SARS-COV-2, COVID-19 pandemic, vaccines, Pfizer/BioNTech vaccine, Moderna vaccine, pharmacology, benefits, allergic responses, indications, contraindications, and adverse effects. ...Both va ...
2 Cite
Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine - United States, December 14-23, 2020.
CDC COVID-19 Response Team; Food and Drug Administration.

Yan etki
(Side effect)

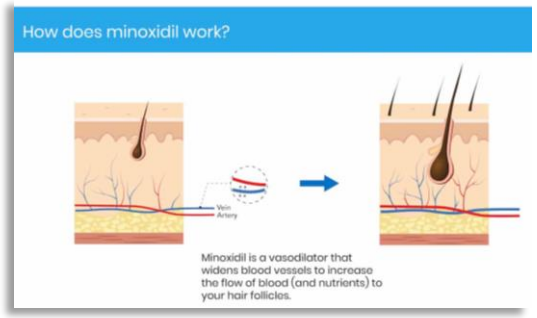
İyi

Kötü

Minoksidil

Antihipertansif

İstenmeyen saç büyümesi



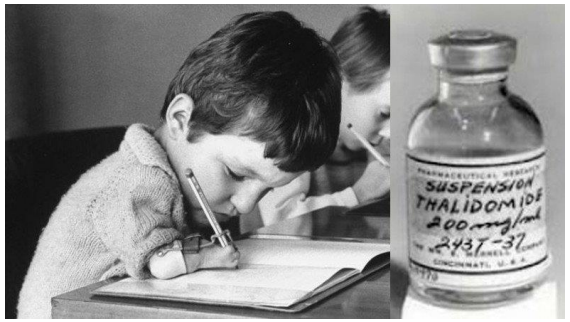
Antibiyotik

Mide bulantısı
Kusma
İshal

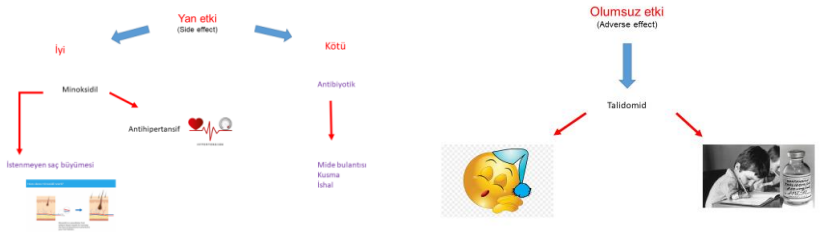
Olumsuz etki

(Adverse effect)

Talidomid



Covid-19 aşı sayısı?



World Health Organization

R&DBlueprint
Powering research to prevent epidemics

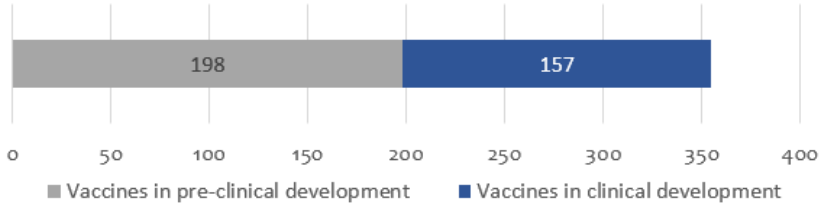
COVID-19 - Landscape of novel coronavirus candidate vaccine development worldwide

20 Mayıs 2022 Cuma

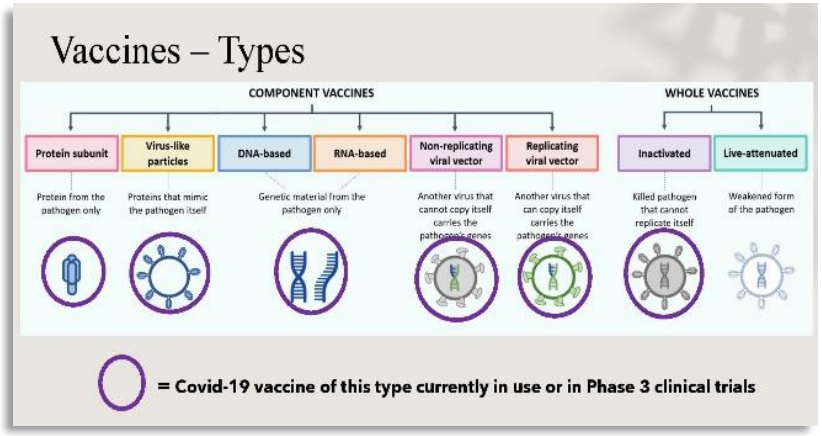
DISCLAIMER: These landscape documents have been prepared by the World Health Organization (WHO) for information purposes only concerning the 2019-2020 pandemic of the novel coronavirus. Inclusion of any particular product or entity in any of these landscape documents does not constitute, and shall not be deemed or construed as, any approval or endorsement by WHO of such product or entity (or any of its businesses or activities). While WHO takes reasonable steps to verify the accuracy of the information presented in these landscape documents, WHO does not make any (and hereby disclaims all) representations and warranties regarding the accuracy, completeness, fitness for a particular purpose (including any of the aforementioned purposes), quality, safety, efficacy, merchantability and/or non-infringement of any information provided in these landscape documents and/or of any of the products referenced therein. WHO also disclaims any and all liability or responsibility whatsoever for any death, disability, injury, suffering, loss, damage or other prejudice of any kind that may arise from or in connection with the procurement, distribution or use of any product included in any of these landscape documents.

Summary Information on Vaccine Products in Clinical Development

1. - Number of vaccines in clinical development	157
2. - Number of vaccines in pre-clinical development	198



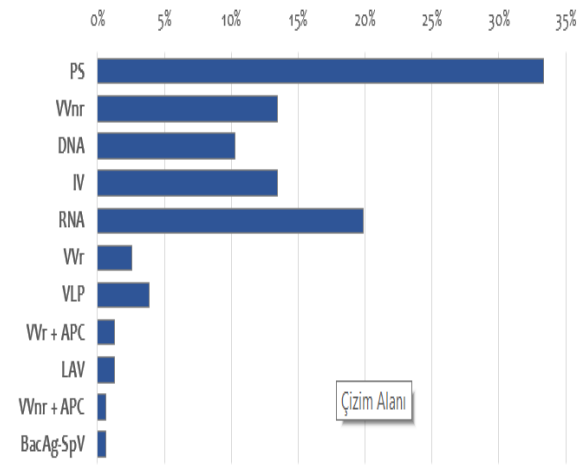
Covid-19 aşı çeşidi?



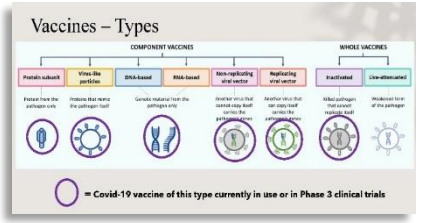
3. - Candidates in clinical phase

Filter: All — Select phase of development (default is all)

Platform		Candidate vaccines (no. and %)	
PS	Protein subunit	52	33%
VVnr	Viral Vector (non-replicating)	21	13%
DNA	DNA	16	10%
IV	Inactivated Virus	21	13%
RNA	RNA	31	20%
VVr	Viral Vector (replicating)	4	3%
VLP	Virus Like Particle	6	4%
VVr + APC	VVr + Antigen Presenting Cell	2	1%
LAV	Live Attenuated Virus	2	1%
VVnr + APC	VVnr + Antigen Presenting Cell	1	1%
BacAg-SpV	Bacterial antigen-spore expression vector	1	1%
		157	



mRNA aşıları yan etki

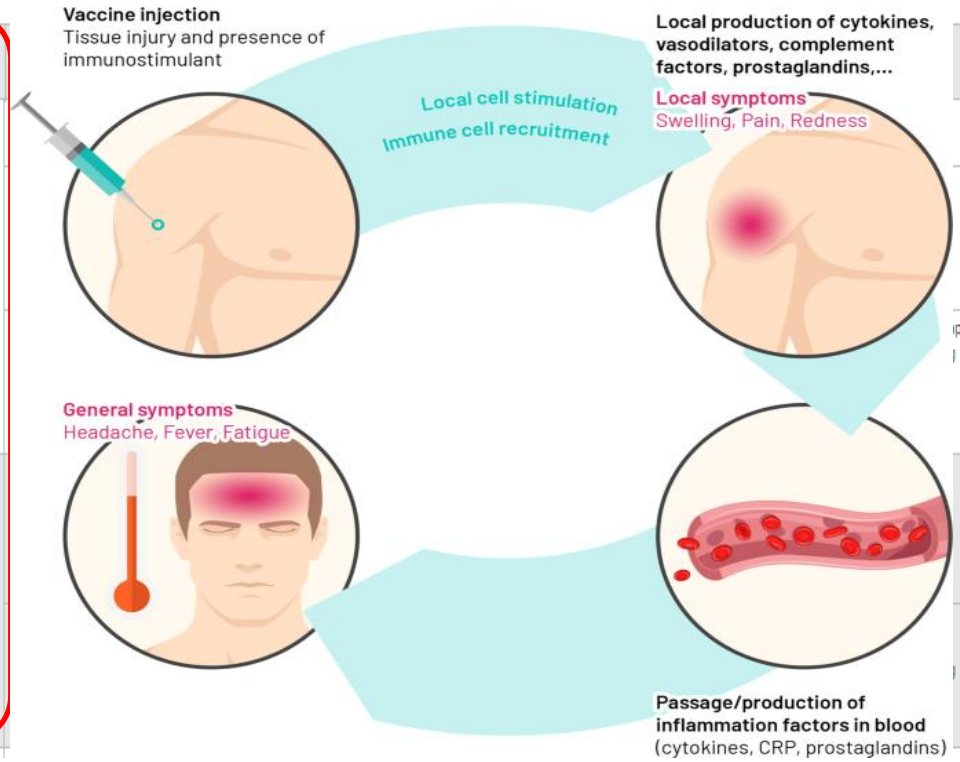


COVID-19 vaccines available in the United States[1-4]

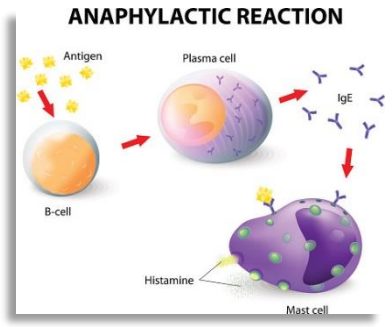
Name	Company/ developer	Platform	Common side effects	Rare adverse effects

BNT162b2[Δ]	Pfizer/BioNTech	mRNA	▪ Local injection site reactions
			▪ Systemic symptoms (fevers, chills, fatigue, myalgias, headache)
				▪ Anaphylaxis (approximately 5 per million doses)
				▪ Myocarditis/pericarditis (approximate risk following primary series):[5]
				  ▪ For males 12 to 16 years old: 71 cases/million doses
				  ▪ For males 16 to 17 years old: 106 cases/million doses
				  ▪ For males 18 to 24 years old: 52 cases/million doses
				  ▪ For males 25 to 29 years old: 17 cases/million doses
				  ▪ For females of the same age group: 2 to 11 cases/million doses

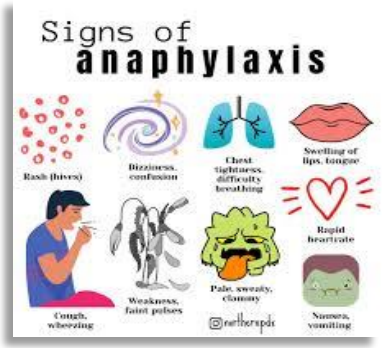
mRNA-1273[Δ]	Moderna	mRNA	▪ Local injection site reactions
			▪ Systemic symptoms (fevers, chills, fatigue, myalgias, headache)
				▪ Anaphylaxis (approximately 2.8 per million doses)
				▪ Myocarditis/pericarditis (approximate risk following primary series):[5]
				  ▪ For males 18 to 24 years old: 56 cases/million doses
				  ▪ For males 25 to 29 years old: 24 cases/million doses
				  ▪ For females of the same age group: 7 to 8 cases/million doses



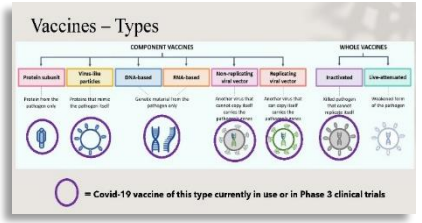
https://www.uptodate.com/contents/covid-19-vaccines?search=covid%2019%20vaccine%20usd&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1



mRNA aşıları anafilaksi yapar mı?



mRNA aşıları yan etki, olumsuz etki



Company/ developer	Platform	Indicated ages	Primary series	First booster dose and interval*	Second booster dose and interval*¶	Common side effects	Rare adverse effects
Pfizer/BioNTech	mRNA	5 to 11 years	Two 10 mcg (0.2 mL orange cap formulation) doses 3 weeks apart◇§	One 10 mcg (0.2 mL orange cap formulation) dose 5 months following the primary series.	Second booster dose not authorized	▪ Local injection site reactions ▪ Systemic symptoms (fevers, chills, fatigue, myalgias, headache)	▪ Anaphylaxis (approximately 5 per million doses) ▪ Myocarditis/pericarditis (approximate risk following primary series):[5] • For males 12 to 16 years old: 71 cases/million doses • For males 16 to 17 years old: 106 cases/million doses • For males 18 to 24 years old: 52 cases/million doses • For males 25 to 29 years old: 17 cases/million doses • For females of the same age group: 2 to 11 cases/million doses
		12 to 50 years	Two 30 mcg (0.3 mL purple or gray cap formulation) doses 3 weeks apart◇ ▪ Healthy individuals <65 years old can extend the interval to 8 weeks¥	One 30 mcg (0.3 mL purple or gray cap formulation) dose 5 months following the primary series‡	For individuals with moderately to severely immunocompromising conditions: ▪ One 30 mcg (0.3 mL purple or gray cap formulation) dose 4 months following the first booster dose		
		>50 years	Two 30 mcg (0.3 mL purple or gray cap formulation) doses 3 weeks apart◇ ▪ Healthy individuals <65 years old can extend the interval to 8 weeks¥	One 30 mcg (0.3 mL purple or gray cap formulation) dose 5 months following the primary series‡	One 30 mcg (0.3 mL purple or gray cap formulation) dose 4 months following the first booster dose		
Moderna	mRNA	18 to 50 years	Two 100 mcg (0.5 mL red cap formulation) doses 4 weeks apart◇ ▪ Healthy individuals <65 years old can extend the interval to 8 weeks¥	One 50 mcg (0.25 mL red cap formulation or 0.5 mL blue cap formulation) dose 5 months following primary series‡	For individuals with moderately to severely immunocompromising conditions: ▪ One 50 mcg (0.25 mL red cap formulation) dose 4 months following the first booster dose	▪ Local injection site reactions ▪ Systemic symptoms (fevers, chills, fatigue, myalgias, headache)	▪ Anaphylaxis (approximately 2.8 per million doses) ▪ Myocarditis/pericarditis (approximate risk following primary series):[5] • For males 18 to 24 years old: 56 cases/million doses • For males 25 to 29 years old: 24 cases/million doses • For females of the same age group: 7 to 8 cases/million doses
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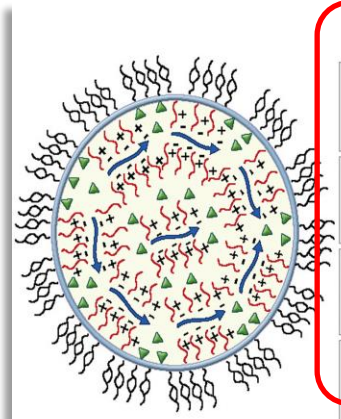
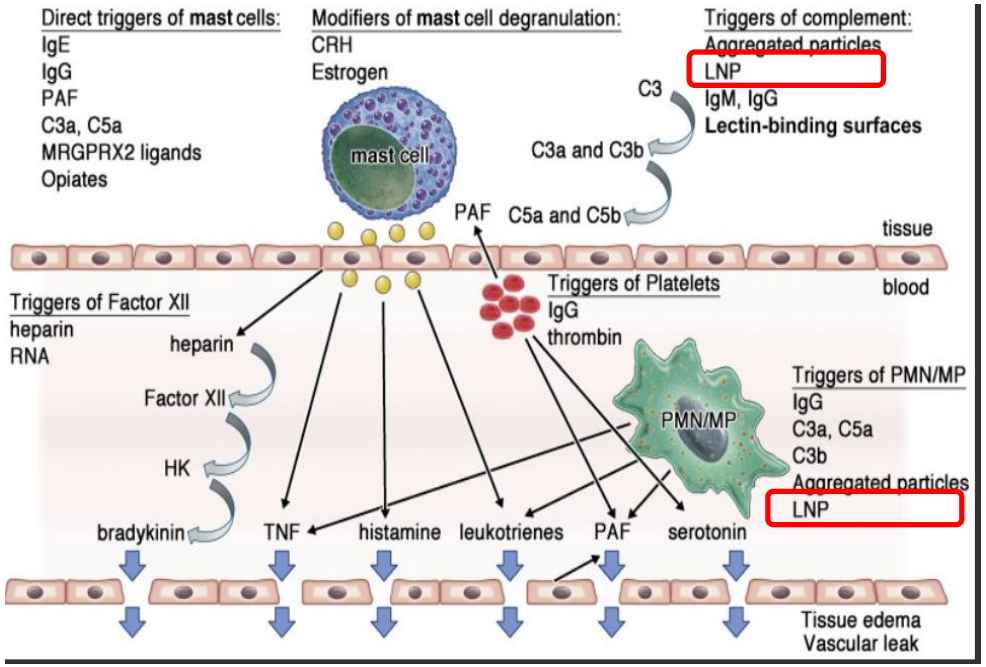
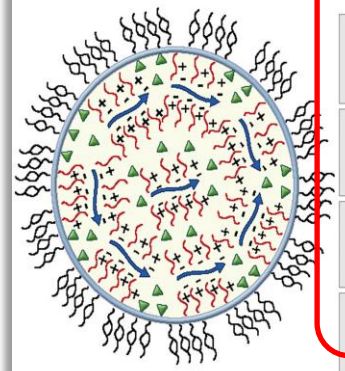
https://www.uptodate.com/contents/covid-19-vaccines?search=covid%2019%20vaccine%20usd&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1



LNP component	Predicted Immunogenicity	µg/dose Pfizer-BioNtech	µg/dose Moderna
PEG-lipid	Preexisting Anti-PEG IgM, IgG and/or IgE	50 µg	Total lipid dose is 1930 µg
Ionizable lipid	Pathogen-associated molecular pattern receptors	430 µg	
neutral lipid (DSPC)	Complement activation	90 µg	
cholesterol		200 µg	
mRNA	Pathogen-associated molecular pattern receptors and Factor XII activation	30 µg	100 µg



Journal of Allergy and Clinical Immunology Volume 147 Issue 6 Pages 2075-2082.e2 (June 2021) DOI: 10.1016/j.jaci.2021.04.002



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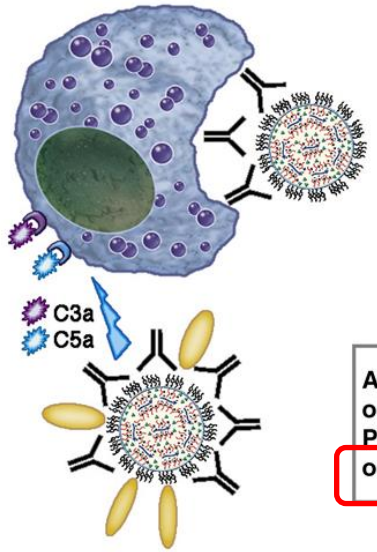
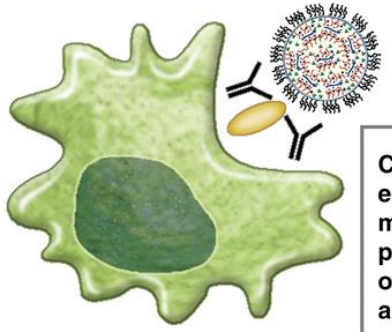


Preexisting Ab is disadvantageous

Preexisting anti-PEG igE bound to mast cells leads to classical anaphtlaxis

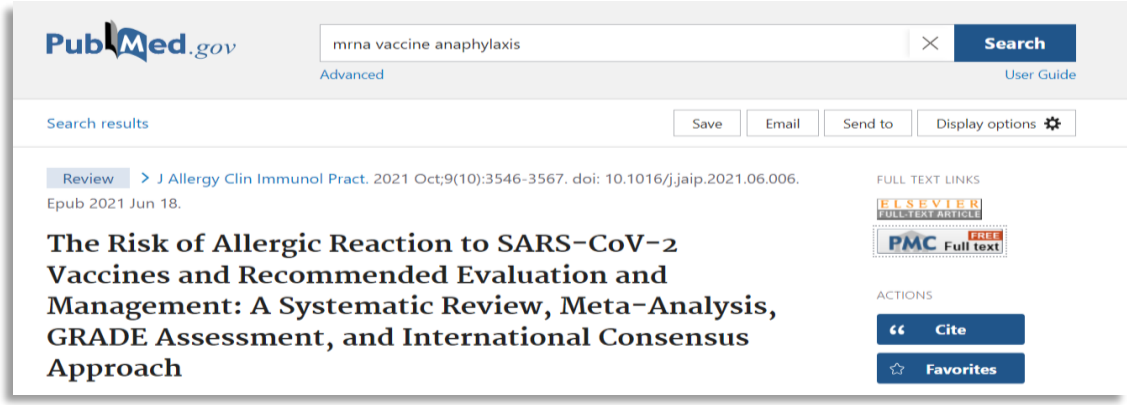
Activation of complement with or without preexisting anti-PEG IgM/IgG leads to CARPA or nonclassical anaphylaxis

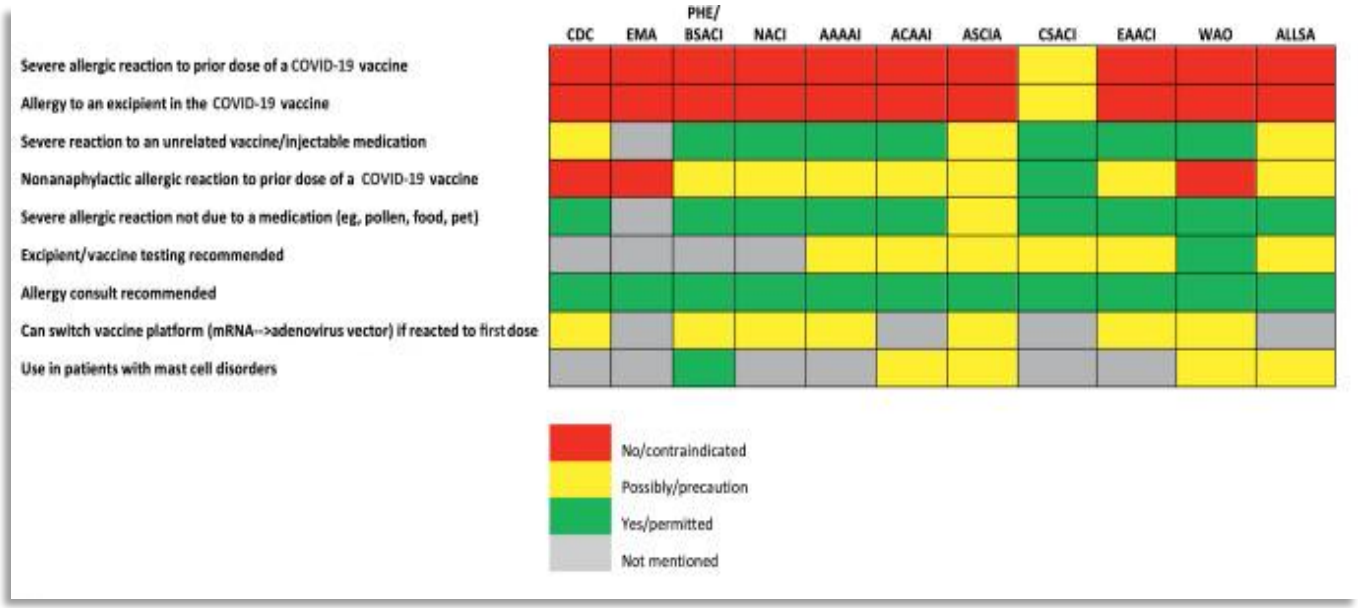


Preexisting Ab is advantageous

C/IgM/IgG bound to LNP enhances endosomal uptake, mRNA translation of spike protein and MHC presentation of spike protein peptides by antigen-presenting cell

Journal of Allergy and Clinical Immunology Volume 147 Issue 6 Pages 2075-2082.e2 (June 2021) DOI: 10.1016/j.jaci.2021.04.002

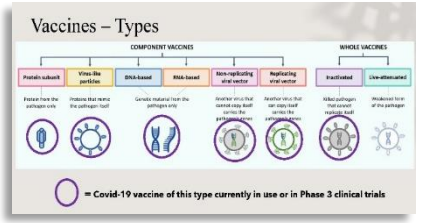




- n = 41,000,000 aşılama
- 26 çalışma
- Anafilaksi riski 7.91 vaka, her milyon aşı

mRNA aşıları myokardit yapar mı?

mRNA aşıları yan etki, olumsuz etki



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		>50 years	Two 100 mcg (0.5	One 50 mcg (0.25	One 50 mcg (0.25 mL		

! Myokardit-perikardit

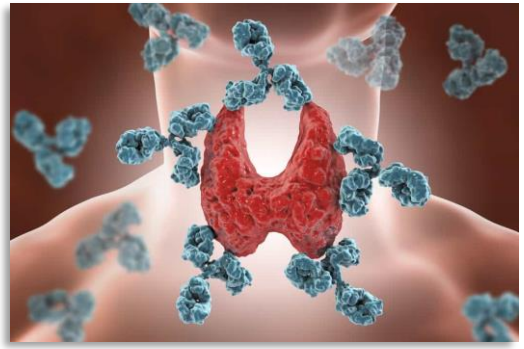
! Erkek cinsiyet

! Genç yaş

! <18 yaş

https://www.uptodate.com/contents/covid-19-vaccines?search=covid%2019%20vaccine%20usd&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

mRNA aşıları tiroidit ?



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J Endocrinol Invest. 2022; 45(6): 1189–1200.
Published online 2022 Jan 29. doi: 10.1007/s40618-022-01747-0

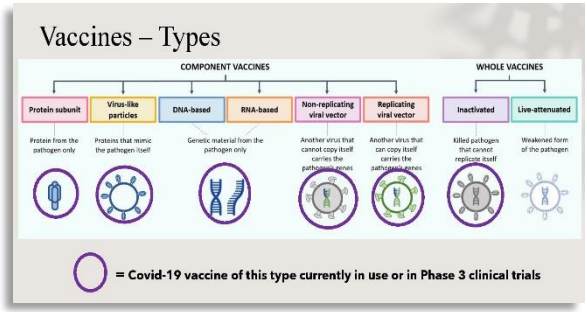
PMCID: PMC8800554
PMID: 35094372

SARS-CoV-2 vaccine-associated subacute thyroiditis: insights from a systematic review

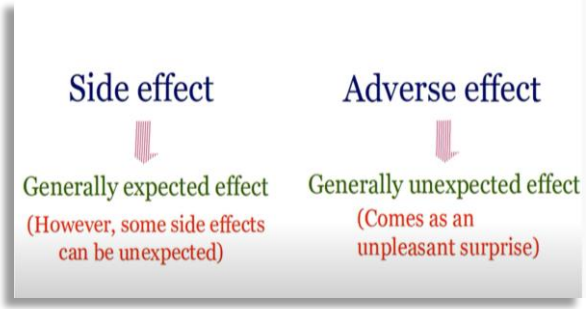
- ✓ Subakut tiroidit hastalığı hikayesi +
- ✓ Sistematik derleme – Metaanaliz
- ✓ 30 çalışma
- ✓ 3 vaka
- ✓ 10 gün takip
- ✓ TSH süpresyon %32
- ✓ T4 artış %26
- ✓ Anti-TPO %7,2
- ✓ Anti-Tg %8,2

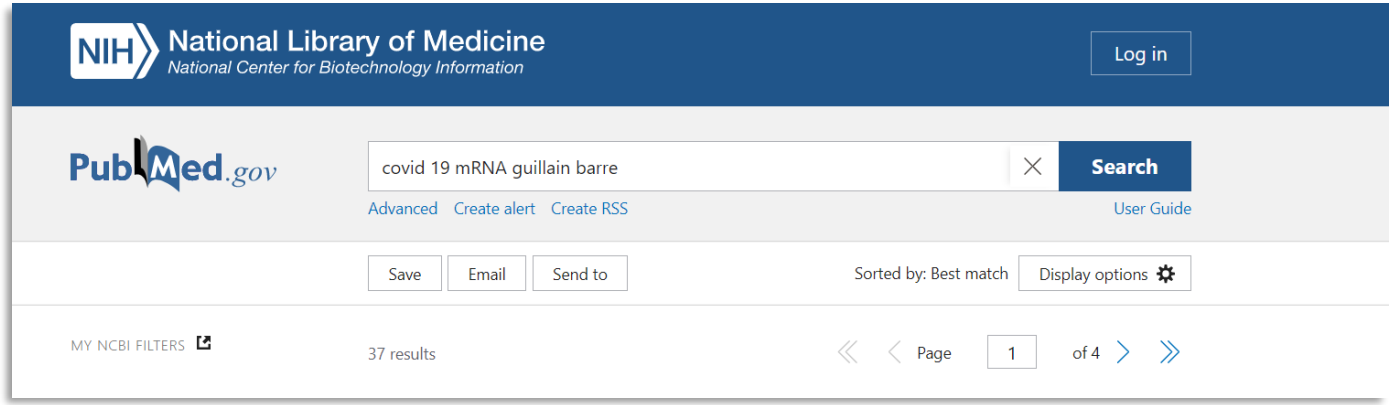
Table 2 Comparison of demographic and clinical features according to different SARS-CoV-2 vaccine categories

No., %	mRNA vaccines 35, 70%	Non-mRNA vaccines		*p-value**
		Viral vector vaccines[a] 9, 18%	Inactivated virus 6, 12%	
Sex F (No., %)	25, 71.4%	8, 88.9%	5, 83.3%	0.248
Age (median, IQR)	40.0, 34–44	47, 39–55	36, 34–38	0.473
European (No., %)	19, 54.3%	5, 55.6%	0	**0.019**
North American (No., %)	7, 20%	0	0	
Asian (No., %)	8, 22.9%	4, 44.4%	6, 100%	
Australian (No., %)	1, 2.9%	0	0	
After 1st dose (No., %)	20, 57%	8, 88.9%	2, 33.3%	0.701
After 2nd dose (No., %)	14, 40%	1, 11.1%	4, 66.7%	
After 3rd dose (No., %)	1, 3%	0	0	
Onset (days after vaccine shot—median, IQR)	9, 4–14	14, 10–14	7, 4–14	0.549
Neck pain (No., %)	26, 74.3%	8, 88.9%	6, 100%	0.123
Palpitations (No., %)	24, 68.6%	4, 44.4%	4, 66.7%	0.304
Fatigue (No., %)	13, 37.1%	2, 22.2%	4, 66.7%	0.849
Fever (No., %)	9, 25.7%	2, 22.2%	2, 33.3%	0.944
Weight loss (No., %)	4, 11.4%	2, 22.2%	4, 66.7%	**0.021**
Anxiety (No., %)	6, 17.1%	2, 22.2%	0	0.736
Baseline TSH suppression (No., %)	32, 91.3%	8, 88.9%	4, 66.7%	0.254
Baseline T4 increase				
(No., %)	26, 74.3%	8, 88.9%	3, 50%	0.944
(median fold change over ULN, IQR)	1.6, 1.4–1.9	1.3, 1.2–3.3	1.8, 1.7–2.7	0.971
Baseline T3 increase				
(No., %)	12, 54.5%	3, 60%	4, 66.7%	0.618
(median fold change over ULN, IQR)	1.5, 1.3–2.1	1.4, 1.1–2.7	1.9, 1.6–2.6	0.499
TPOAb	7, 21.2%	1, 12.5%	0	0.276
TgAb	8, 28.6%	2, 40%	0	0.597
Baseline CRP increase				
(No., %)	19, 90.5%	5, 83.3%	4, 66.7%	0.233
(median fold change over ULN, IQR)	8.4, 4.6–18.4	5.8, 5.7–6.9	10.9, 6.0–15.5	0.699
Baseline ESR increase				
(No., %)	19, 90.5%	5, 83.3%%	5, 83.3%	0.545
(median fold change over ULN, IQR)	3.1, 2.2–4.4	2.8, 1.9–3.2	3.9, 2.7–6.7	0.885



Guillain-Barré sendromu hangi aşı?

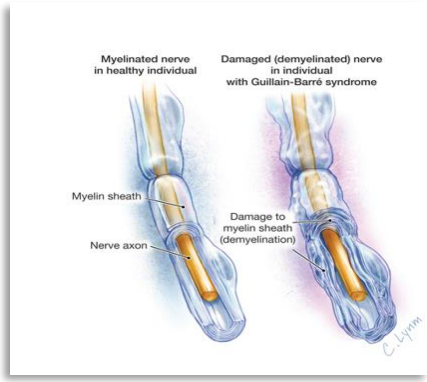


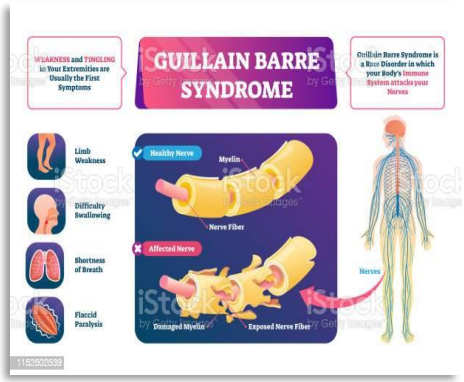


1.1/100.000

Otoimmün

Periferel sinir





Clin Immunol. 2021 Sep;230:108818. doi: 10.1016/j.clim.2021.108818.

Clin Immunol. 2021 Sep; 230: 108818.
Published online 2021 Aug 4. doi: 10.1016/j.clim.2021.108818
PMCID: PMC8332675
PMID: 34358692

Elsevier Public Hea

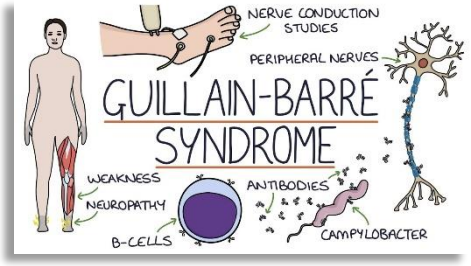
Guillain-Barré syndrome is infrequent among recipients of the BNT162b2 mRNA COVID-19 vaccine

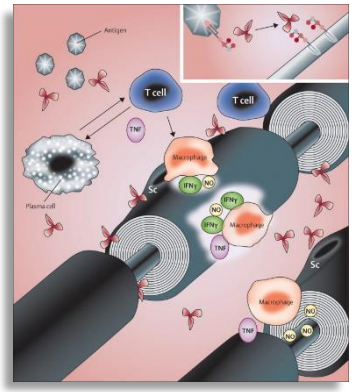
- Meksika Sağlık Bakanlığı kohort
- 3,890,250 aşılı kişi
- Aşı sonrası 30 gün takip
- İlk doz aşı sonrası 0,18/100.000
- 2.doz aşı sonrası vaka yok
- Kısıtlılık 1: 30 gün
- Kısıtlılık 2: Aşısız COVID 19 Guillain-Barré syndrome insidans?

JAMA Neurol. 2021 Nov 1;78(11):1409-1411. doi: 10.1001/jamaneurol.2021.3287.

Rate of Recurrent Guillain–Barré Syndrome After mRNA COVID-19 Vaccine BNT162b2

- İsrail, Maccabi
- 2.500.000 Retrospektif Kohort
- ICD kod Guillain-Barré sendrom
- 702 vaka (2000-2020 yıl)
- 579 tek doz, 539 çift doz
- 5 hasta nörolojik komp.
  - (2 parestezi, 1 titreme süresinde uzama, 1 nöbet, 1 bacakta güçsüzlük- parestezi)





Found 1 result for *34697502*

Save | Email | Send to | Display options

Filters applied: 5 years. Clear all

> Nat Med. 2021 Dec;27(12):2144-2153. doi: 10.1038/s41591-021-01556-7. Epub 2021 Oct 25.

Neurological complications after first dose of COVID-19 vaccines and SARS-CoV-2 infection

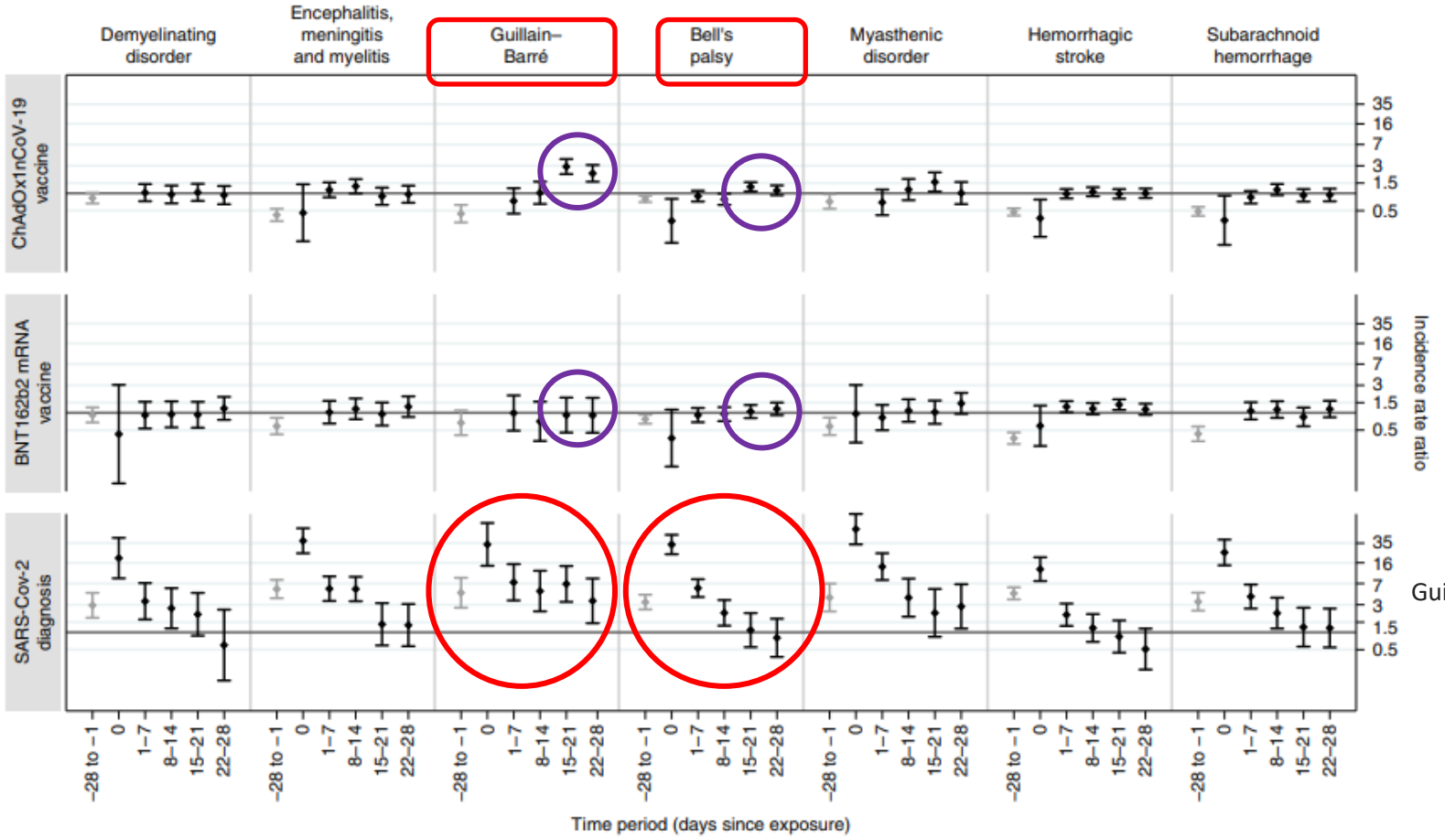
FULL TEXT LINKS

nature publishing group

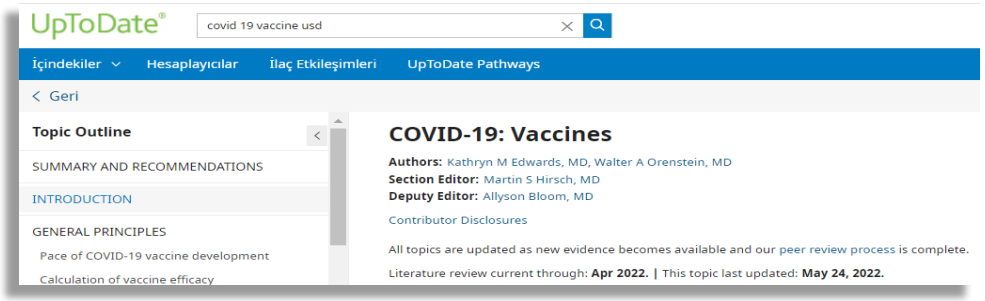
PMC FREE Full text

GBS incidence rate ratio (IRR), 2.90

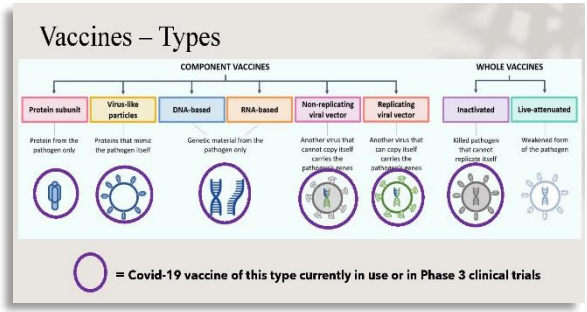
Bell's palsy IRR, 1.29



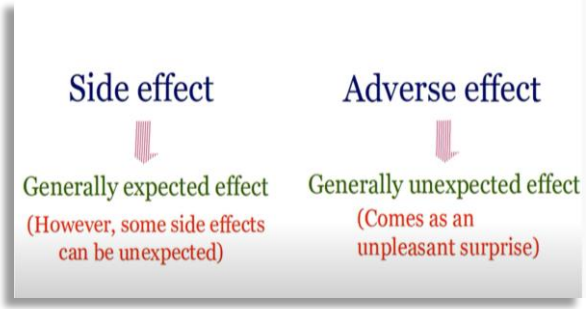
Guillain-Barré syndrome IRR, 5.25

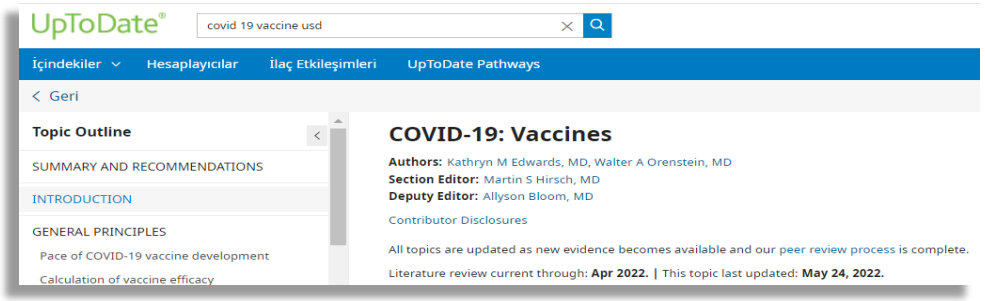


Name	Company/ developer	Platform	Indicated ages	Primary series	First booster dose and interval*	Second booster dose and interval*¶	Common side effects	Rare adverse effects
Ad26.COV2.S[Δ]	Janssen/Johnson & Johnson	Replication-incompetent adenovirus 26 vector	18 years and older	One 5×10^{10} viral particles (0.5 mL) dose[◇]	One 5×10^{10} viral particles (0.5 mL) dose 2 months following primary series[‡]	Second Ad26.COV2.S booster dose not authorized; however certain individuals who received Ad26.COV2.S are eligible for a second booster with mRNA vaccine[¶]	▪ Local injection site reactions ▪ Systemic symptoms (fevers, chills, fatigue, myalgias, headache)	▪ Thrombotic complications associated with thrombocytopenia (approximate risk): • For females 30 to 39 years old: 12.4 cases/million doses • For females 40 to 49 years old: 9.4 cases/million doses • For females in other age ranges and males: 1.3 to 4.7 cases/million doses ▪ Guillain-Barre syndrome (approximately 8 cases/million doses)



Adenovirüs vektör aşıları başka olumsuz etkisi var mı?





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Case Reports > N Engl J Med. 2021 Jun 3;384(22):2092-2101. doi: 10.1056/NEJMoa2104840. Epub 2021 Apr 9.

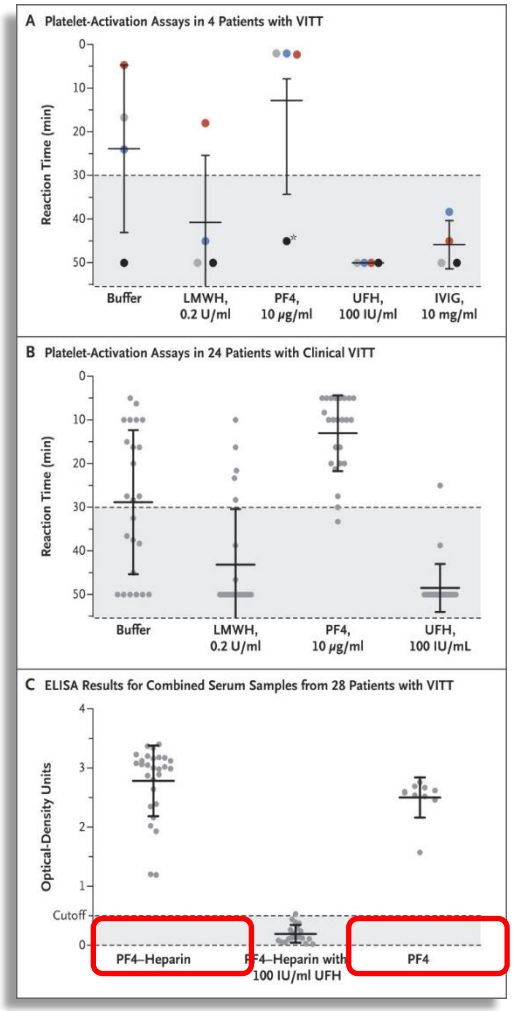
FULL TEXT LINKS

NEJM FULL TEXT

PMC FREE Full text

Thrombotic Thrombocytopenia after ChAdOx1 nCov-19 Vaccination

- Almanya ve Avusturya, ChAdOx1 nCov-19, AstraZeneca
- 11 hasta trombositopeni / trombosiz
- ELISA Platelet faktör 4 (PF4)+ Platelet aktivasyon testleri
- 9/11 kadın
  - 9 serebral venöz trombüs
  - 3 splenik ven trombüs
  - 3 pulmoner trombüs
  - 3 diğer sistem
  - 5 hasta DIC
  - 6 hasta ex



N Engl J Med. 2021 Oct 28;385(18):1680-1689. doi: 10.1056/NEJMoa2109908. Epub 2021 Aug 11.

Clinical Features of Vaccine–Induced Immune Thrombocytopenia and Thrombosis

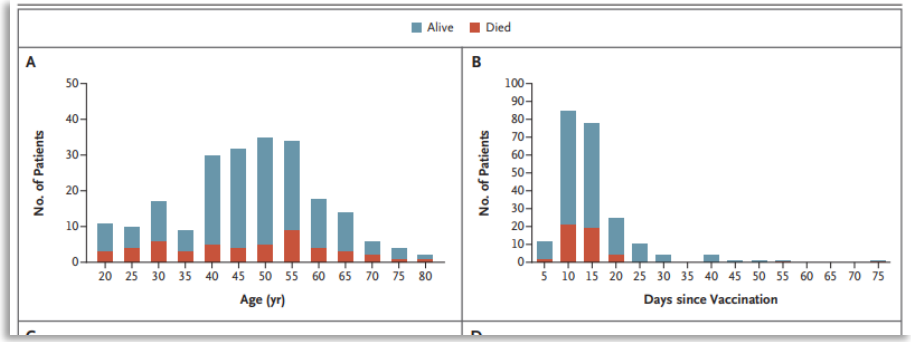
- İngiltere
- Prospektif kohort

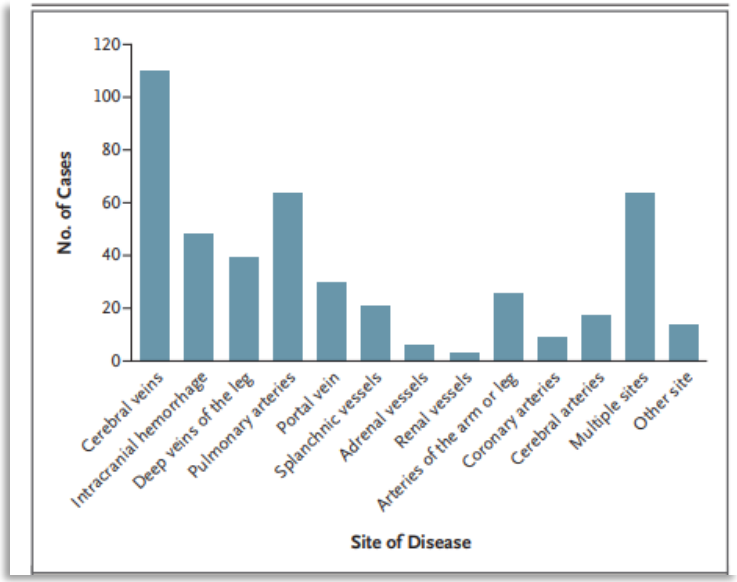
- ChAdOx1 nCoV-19,
- VITT (Vaccine-induced immune thrombocytopenia and thrombosis)

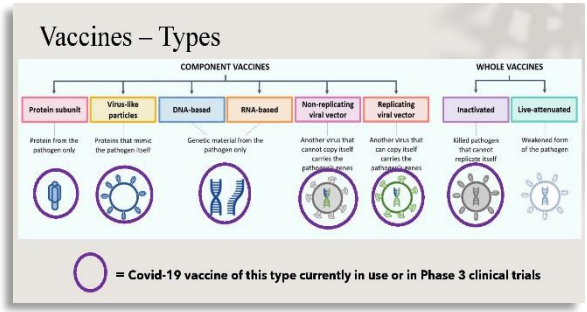
- 294 hasta, > kadın,

- 190/220 hasta anti-PF4 +

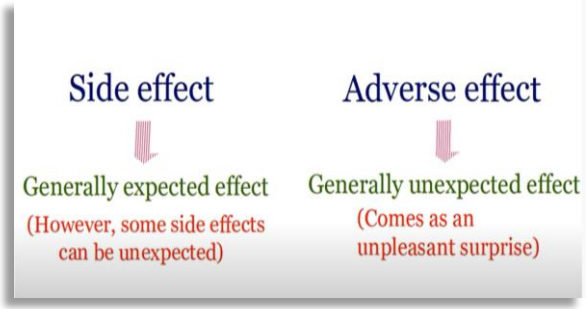
- 49 ex

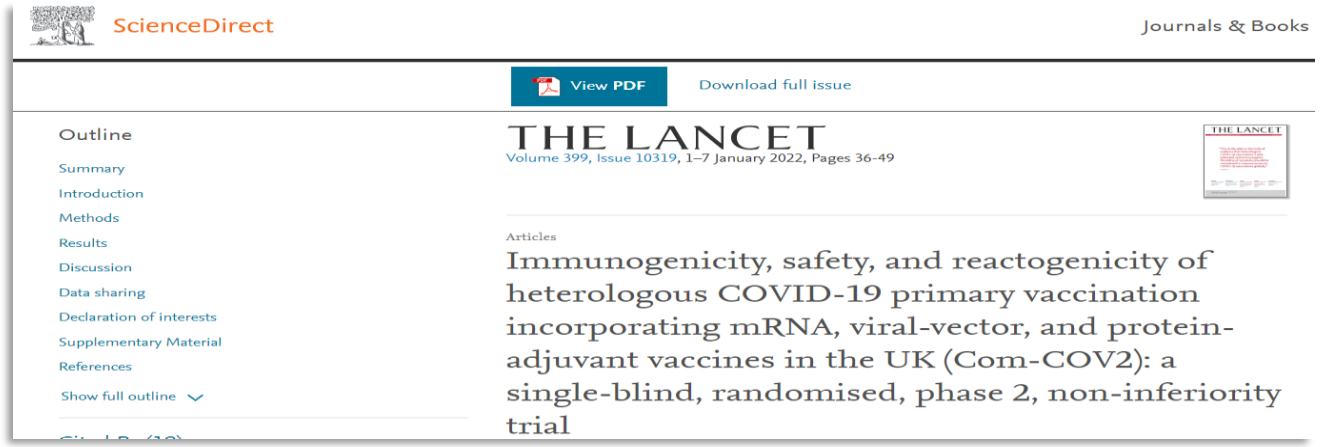






Yan etki açısından en güvenli aşı?





- ✓ Homolog aşılama
- ✓ Heterolog aşılama

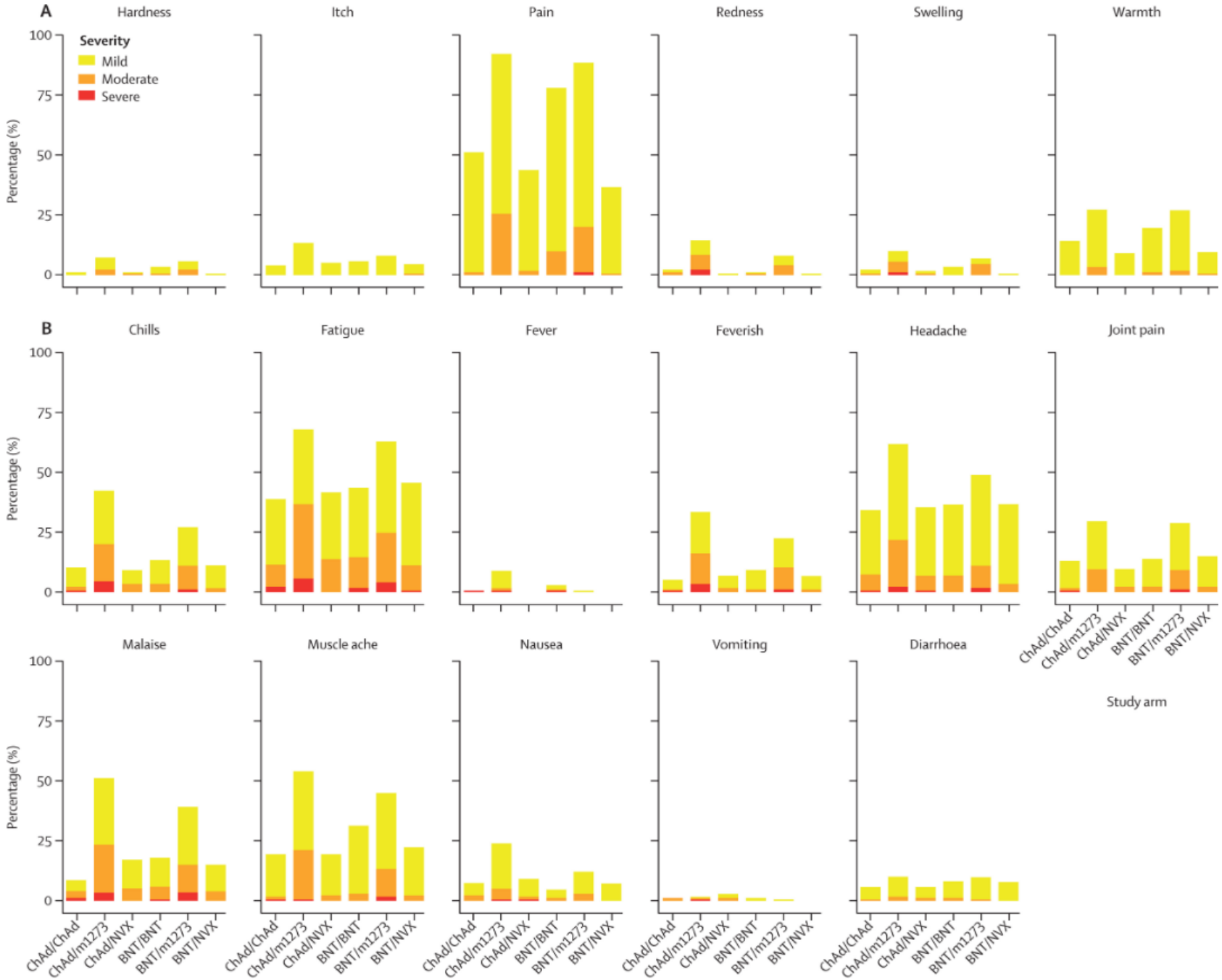
- ✓ 50 yaş ve >

- ✓ 1072

- ✓ BNT=BNT162b2 vaccine, Pfizer–BioNTech
- ✓ m1273=mRNA−1273 vaccine, Moderna

- ✓ ChAd=ChAdOx1 nCoV-19 vaccine, AstraZeneca

- ✓ NVX=NVXCoV2373 vaccine, Novavax.


A
Hardness
Itch
Pain
Redness
Swelling
Warmth
Severity
Mild
Moderate
Severe
Percentage (%)
100
75
50
25
0
B
Chills
Fatigue
Fever
Feverish
Headache
Joint pain
Malaise
Muscle ache
Nausea
Vomiting
Diarrhoea
ChAd/ChAd
ChAd/m1273
ChAd/NVX
BNT/BNT
BNT/m1273
BNT/NVX
Study arm

N Engl J Med. 2021 Sep 16;385(12):1078-1090. doi: 10.1056/NEJMoa2110475. Epub 2021 Aug 25.

Safety of the BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Setting

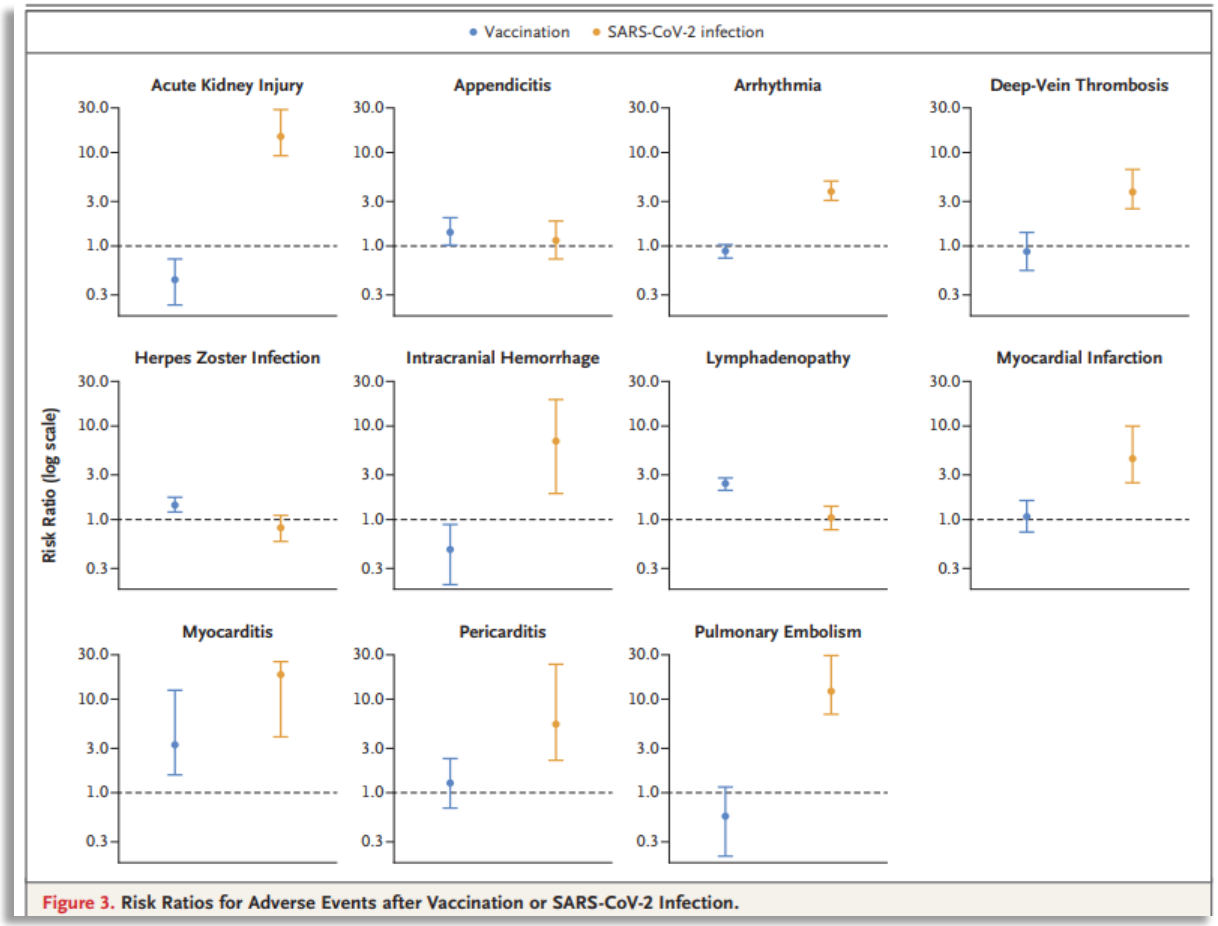


Figure 3. Risk Ratios for Adverse Events after Vaccination or SARS-CoV-2 Infection.

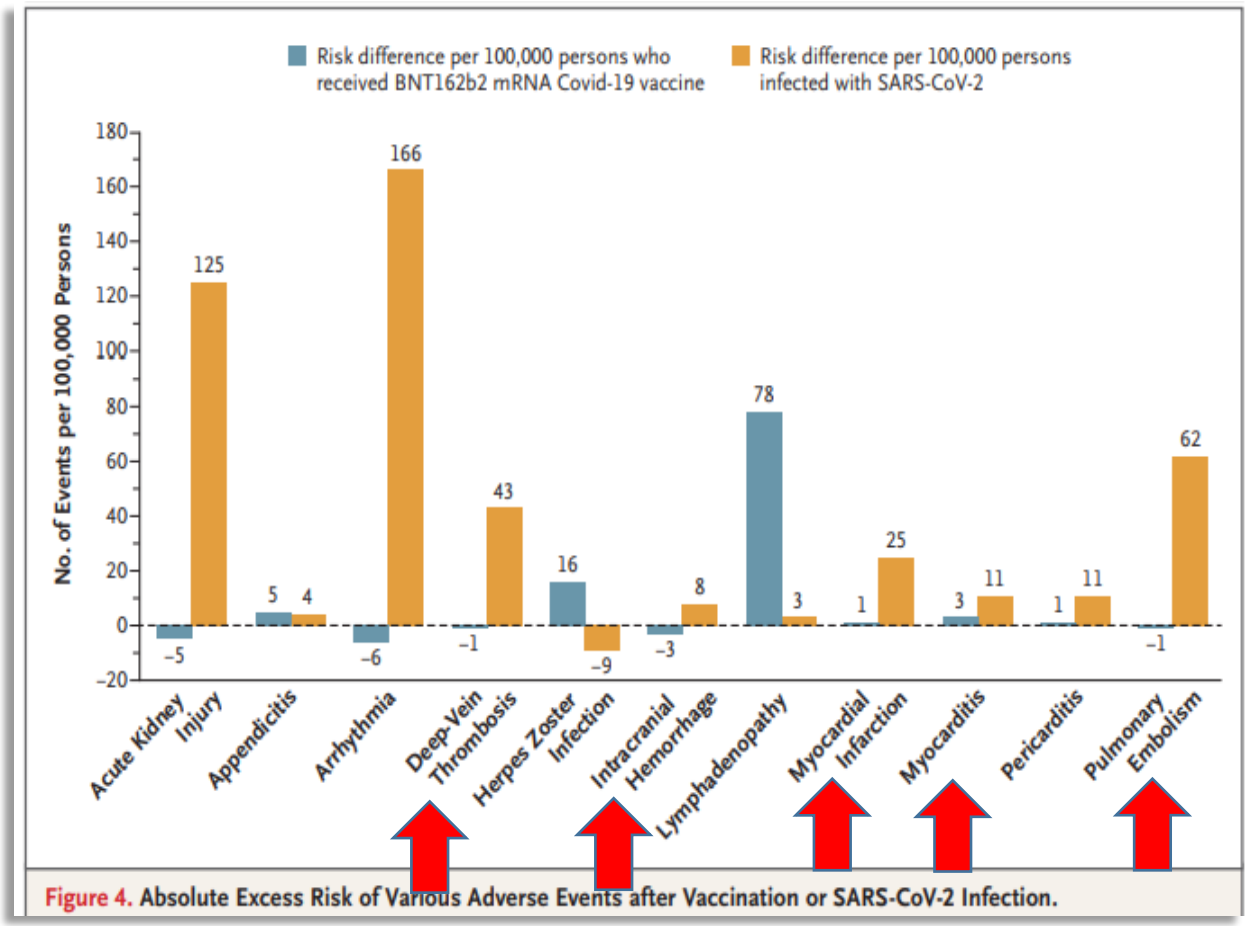
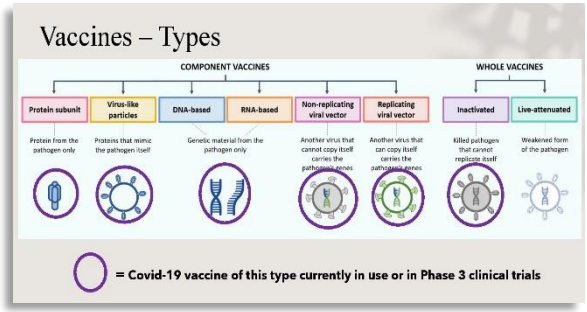
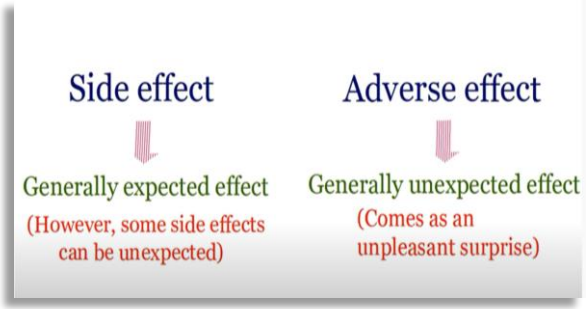
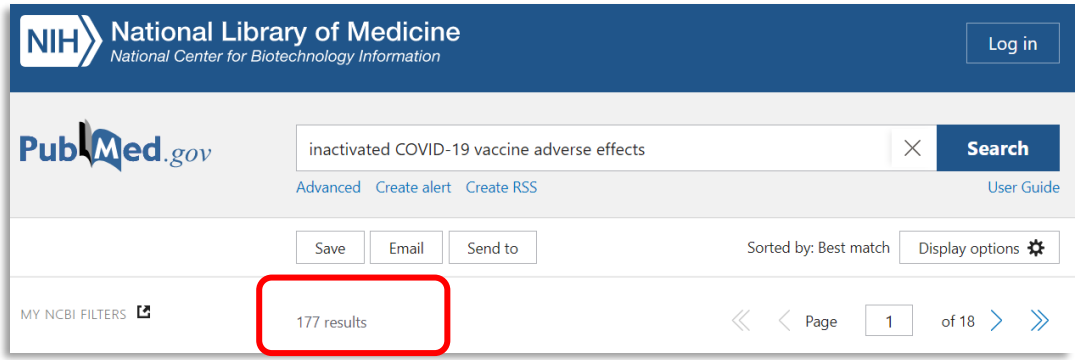


Figure 4. Absolute Excess Risk of Various Adverse Events after Vaccination or SARS-CoV-2 Infection.



İnaktive edilmiş COVİD 19 aşıları





Clinical Trial > Lancet Infect Dis. 2021 Jan;21(1):39-51. doi: 10.1016/S1473-3099(20)30831-8. Epub 2020 Oct 15.

Safety and immunogenicity of an inactivated SARS-CoV-2 vaccine, BBIBP-CorV: a randomised, double-blind, placebo-controlled, phase 1/2 trial

28 gün takip
Hafif, orta olumsuz etki (adverse effect)
Ağır yok

> Allergol Immunopathol (Madr). 2022 May 1;50(3):132-137. doi: 10.1016/j.iac.2014.04.004. eCollection 2022.

Safety of an inactivated COVID-19 vaccine in patients with - wheat-dependent exercise-induced anaphylaxis

72 WDEIA hastası	&	730 sağlıklı
1.Doz %4.2	&	%0,5
2.Doz %1,4	&	%0

Review > Acta Neurol Scand. 2021 Jul;144(1):3-12. doi: 10.1111/ane.13417. Epub 2021 Mar 29.

The potential neurological effect of the COVID-19 vaccines: A review

Vaccine platform	Candidate	Developer	Number of doses	Outcome published in Humans	Published sample size	Phase 3 trial Sample size	Severe adverse effect	Neurological adverse effect
Inactivated	CoronaVac	Sinovac	2	Phase 1/2 in The Lancet Infectious Diseases 13	743 (143 + 600)	13,060 in Brazil; 13000 in Turkey; 1620 in Indonesia	Phase 1: one case of urticaria 48 h after the first dose of in the 6 μg group in the days 0 and 14 vaccination cohort	None
Inactivated	No name announced	Wuhan Institute of Biological Products/Sinopharm	2	Phase 1 and 2 in JAMA 14	320 (96 + 224)	15,000 in UAE[a]; 600 in Morocco;	Phase 1: one case with swelling and pain of left knee joint and subcutaneous hematoma and another case acute appendicitis in high dose group Phase 2: one case of fever (39.0°), another case of skin laceration from left eyebrow arch to hair source, multiple skin contusion at nasal back.	None
Inactivated	BBIBP-CorV	Beijing Institute of Biological Products/Sinopharm	2	Phase 1/2 in The Lancet Infectious Diseases 15	640 (192 + 448)	15,000 in UAE[a]; 3000 in Argentine	Phase 2: One placebo recipient in the 4 μg days 0 and 21 group reported grade 3 fever,	None
Inactivated	Covaxin	Bharat Biotech	2	Bharat Biotech statement.	1100	26,000 in India	NA	NA

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J Endocrinol Invest. 2022; 45(6): 1189–1200.
Published online 2022 Jan 29. doi: 10.1007/s40618-022-01747-0

PMCID: PMC8800554
PMID: 35094372

SARS-CoV-2 vaccine-associated subacute thyroiditis: insights from a systematic review

Table 2 Comparison of demographic and clinical features according to different SARS-CoV-2 vaccine categories

No., %	mRNA vaccines 35, 70%	Non-mRNA vaccines		*p-value**
		Viral vector vaccines[a] 9, 18%	Inactivated virus 6, 12%	
Sex F (No., %)	25, 71.4%	8, 88.9%	5, 83.3%	0.248
Age (median, IQR)	40.0, 34–44	47, 39–55	36, 34–38	0.473
European (No., %)	19, 54.3%	5, 55.6%	0	**0.019**
North American (No., %)	7, 20%	0	0	
Asian (No., %)	8, 22.9%	4, 44.4%	6, 100%	
Australian (No., %)	1, 2.9%	0	0	
After 1st dose (No., %)	20, 57%	8, 88.9%	2, 33.3%	0.701
After 2nd dose (No., %)	14, 40%	1, 11.1%	4, 66.7%	
After 3rd dose (No., %)	1, 3%	0	0	
Onset (days after vaccine shot—median, IQR)	9, 4–14	14, 10–14	7, 4–14	0.549
Neck pain (No., %)	26, 74.3%	8, 88.9%	6, 100%	0.123
Palpitations (No., %)	24, 68.6%	4, 44.4%	4, 66.7%	0.304
Fatigue (No., %)	13, 37.1%	2, 22.2%	4, 66.7%	0.849
Fever (No., %)	9, 25.7%	2, 22.2%	2, 33.3%	0.944
Weight loss (No., %)	4, 11.4%	2, 22.2%	4, 66.7%	**0.021**
Anxiety (No., %)	6, 17.1%	2, 22.2%	0	0.736
Baseline TSH suppression (No., %)	32, 91.3%	8, 88.9%	4, 66.7%	0.254
Baseline T4 increase (No., %)	26, 74.3%	8, 88.9%	3, 50%	0.944
(median fold change over ULN, IQR)	1.6, 1.4–1.9	1.3, 1.2–3.3	1.8, 1.7–2.7	0.971
Baseline T3 increase (No., %)	12, 54.5%	3, 60%	4, 66.7%	0.618
(median fold change over ULN, IQR)	1.5, 1.3–2.1	1.4, 1.1–2.7	1.9, 1.6–2.6	0.499
TPOAb	7, 21.2%	1, 12.5%	0	0.276
TgAb	8, 28.6%	2, 40%	0	0.597

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J Endocrinol Invest. 2022; 45(6): 1189–1200. PMCID: PMC8800554
Published online 2022 Jan 29. doi: 10.1007/s40618-022-01747-0 PMID: 35094372

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(median fold change over ULN, IQR)	1.6, 1.4–1.9	1.3, 1.2–3.3	1.8, 1.7–2.7	0.971
Baseline T3 increase (No., %)	12, 54.5%	3, 60%	4, 66.7%	0.618
(median fold change over ULN, IQR)	1.5, 1.3–2.1	1.4, 1.1–2.7	1.9, 1.6–2.6	0.499
TPOAb	7, 21.2%	1, 12.5%	0	0.276
TgAb	8, 28.6%	2, 40%	0	0.597

Postgrad Med. 2022 Jan;134(1):104-110. doi: 10.1080/00325481.2021.1999708. Epub 2021 Nov 10.

Adverse events report of inactivated COVID-19 vaccine from 4040 healthcare workers

Selma Tosun [1], Hülya Ozkan Ozdemir [1], Esin Erdogan [2], Seniz Akcay [3], Murat Aysin [4], Neslihan Eskut [5], Pınar Ortan [5], Burak Eskut [6]

	1st dose *(n = 4040)*	2nd dose *(n = 3969)*	p value
Pain in the vaccinated arm, n (%)*	1530 (37.9)	1493 (37.6)	0.814[1]
Pain at the injection site	189 (4.7)	187 (4.7)	0.943[1]
Joint pain	71 (1.8)	83 (2.1)	0.278[1]
Swelling	47 (1.2)	51 (1.3)	0.620[1]
Redness	7 (0.2)	12 (0.3)	0.235[1]
Abscess	15 (0.4)	20 (0.5)	0.368[1]
Lymph Node Swelling at the arm			

Postgrad Med. 2022 Jan;134(1):104-110. doi: 10.1080/00325481.2021.1999708. Epub 2021 Nov 10.

Adverse events report of inactivated COVID-19 vaccine from 4040 healthcare workers

Selma Tosun [1], Hülya Ozkan Ozdemir [1], Esin Erdogan [2], Seniz Akcay [3], Murat Aysin [4], Neslihan Eskut [5], Pınar Ortan [5], Burak Eskut [6]

	1st dose *(n = 4040)*	2nd dose *(n = 3969)*	p value
General findings, n (%)*			
Headache	869 (21.5)	669 (16.8)	<0.001[1]
Fatigue	728 (18.0)	598 (15.0)	0.001[1]
Subfebrile fever (<38°C)	181 (4.5)	115 (2.8)	<0.001[1]
Fever (>38°C)	13 (0.3)	19 (0.5)	0.266[1]
Loss of appetite	71 (1.8)	59 (1.5)	0.337[1]
Increase of appetite	26 (0.6)	43 (1.1)	0.033[1]
Loss of taste	38 (0.9)	28 (0.7)	0.245[1]
Loss of smell	13 (0.3)	18 (0.4)	0.342[1]
Lymph node swelling other than the vaccinated arm	12 (0.3)	24 (0.6)	0.039[1]
Finding related to musculoskeletal system n (%)*			
Back pain	356 (8.8)	328 (8.2)	0.380[1]
Joint pain other than the vaccinated arm	340 (8.4)	298 (7.5)	0.133[1]
Pain around scapula	189 (4.7)	174 (4.3)	0.526[1]
Joint swelling	12 (0.3)	18 (0.4)	0.252[1]
Findings related to gastrointestinal system, n (%)*			
Nausea	253 (6.3)	192 (4.8)	0.005[1]
Diarrhae	99 (2.5)	83 (2.1)	0.282[1]
Abdominal pain	86 (2.1)	79 (2.0)	0.663[1]
Vomiting	35 (0.9)	20 (0.5)	0.049[1]
Findings related to cardiovascular System, n (%)*			
Palpitation	160 (4.0)	147 (3.7)	0.549[1]
Hypertension	128 (3.2)	114 (2.8)	0.439[1]
Tachycardia	129 (3.2)	100 (2.5)	0.070[1]
Arrythmia	64 (1.6)	66 (1.6)	0.780[1]
Hypotension	61 (1.5)	39 (1.0)	0.033[1]

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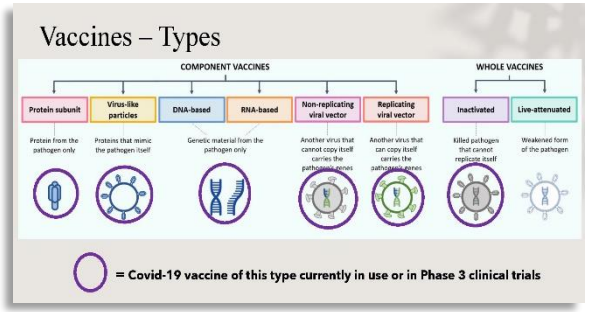
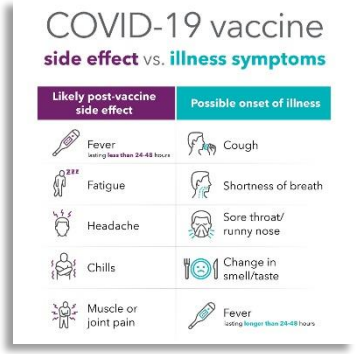
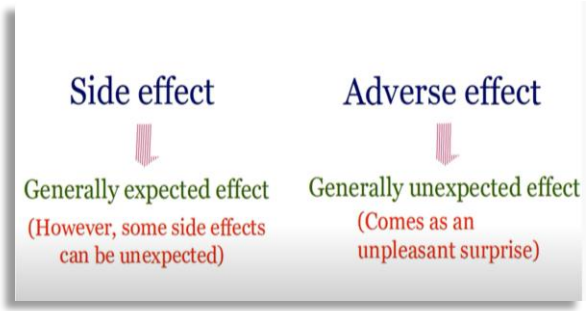
Neurological findings, n (%)*	386 (9.6)	326 (8.2)	0.035[1]
Drowsiness	165 (4.1)	136 (3.4)	0.121[1]
Dizziness	122 (3.0)	109 (2.7)	0.464[1]
Weakness of the arms	116 (2.9)	102 (2.5)	0.407[1]
Weakness of the legs	120 (3.0)	94 (2.3)	0.094[1]
Numbness of the arms	77 (1.9)	44 (1.1)	0.003[1]
Numbness of the face	25 (0.6)	33 (0.8)	0.262[1]
Numbness of the body	59 (1.5)	59 (1.5)	0.922[1]
Tingling	39 (1.0)	46 (1.1)	0.397[1]
Neuropathic pain	25 (0.6)	24 (0.6)	0.935[1]
Walking difficulty	50 (1.2)	70 (1.7)	0.052[1]
Insomnia			
Findings related to endocrine system, n (%)*	8 (0.8)	6 (0.6)	0.594[1]
Menstruation irregularity	1 (0.1)	3 (0.3)	0.317[1]
Decrease milk in breastfeeding mother			
Findings related to hypersensitivity, n (%)*	70 (1.7)	67 (1.7)	0.877[1]
Itching	53 (1.3)	39 (1.0)	0.167[1]
Respiratory distress	35 (0.9)	29 (0.7)	0.495[1]
Rash	10 (0.2)	7 (0.2)	0.489[1]
Syncope	1 (0.025)	1 (0.025)	0.990[1]
Anaphylaxis			







Aşı Yan Etkileri Kanıt mı, Kanaat mi?

Dr. R. Aytaç ÇETİNKAYA