

# SARS-CoV-2 and the Nervous System: Current Perspectives

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Table: The wide spectrum of reported neurological and psychiatric manifestations with the prevalence rates

Year of publication	Location of study	Sample Size for followup	Point of follow-up	Fatigue	Confusion or brain fog or mental slowness	Stress or anxiety	Taste dysfunction	Smell dysfunction	Headache	Insomnia or sleep difficulties	Dizziness or light headedness or vertigo	Vision changes	Tinnitus	Attention Disorder /Cognitive/memory/concentration impairment	Stroke	Incontinence (fecal or urinary)	Functional impairment	Hearing loss	Sensitivity disorder	Intracranial hemorrhage	GBS	Movement disturbances	Gait disturbances	Postural instability or falls	Swallowing difficulty	Myalgia	Autoimmune encephalitis	Parasthesia or numbness or tingling	Reference
2020	Italy	143	mean of 60.3 (SD, 13.6) days post onset	53.1			~10	~15	~8		~5																		[1]
2020	US	274	14-21 days post onset	71	~20		~25	~20	61																				[2]
2020	UK	68 (from wards)	mean 48 days (range 29-71) post discharge	60.3										16.2		Bowel 2.9, Bladder 8.8									5.9				[3]

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2020	UK	32 (from ICU)	mean 48 days (range 29-71) post discharge	72										34.4		Bowel 3.1, bladder 12.5									12.5					[3]
2020	Netherlands and Belgium	2113	mean period of 79±17 days post onset	87			11	13	38		27	12																	[4]	
2021	US	303	median 63 (IQR 53, 87.5) days post onset	37.5	30.8	30.8	26.4		20.7	22.1	12.5	6.3	9.1																[5]	
2021	US	1733	median 186 (175-199) days post onset	63		23	7	11	2	26	6																		[6]	

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2021	China	538	median 97 (range 91 to 166) days post discharge	28.3		6.5				17.7	2.6																		[7]
2021	UK	110	Median 90 days post onset	39				10	~5	24																			[8]
2021	China	1276	median 185 days post onset	52			7	11	2	27	6																		[9]
2021	China	1276	median 349 days post onset	20			3	4	5	17	5																		[9]
2021	US	2363 79	6 months			23.98				5.4				2.1						0.5	0.0 8								[10]
2021	China	932	3 months	1.8			0.8	0.5																					[11]
2021	Italy	91	30 days post discharge	52		21		14		31																			[12]

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2021	France	478	median 113 days post discharge	31.1	10.1			6	5.5					17.5														12.1	[13]
2021	Germany	442	median 131 days (IQR 112–149)	9.7			11.1	12.4																					[14]
2021	Germany	353	median 207 days (IQR 187–234)	14.7			11	14.7																					[14]
2021	Spain	797	6 months post discharge	22.1	2.6	6.8	7.2		5.3	4.9	1.9	4.6										3.4						3.4	[15]
2021	China	796	6 months post discharge	25.3						23.2																			[16]
2021	Italy	165	6 months post discharge	33.9	13.3	26.7	16.4			31.5		19.5		31.5		13.9						10.3	10.9	8.5	6.1			18.8	[17]
2021	Norway	312	6 months post illness	37			25							26															[18]

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2021	China	2433	1 year post illness	27.7		10.4	1.4	1.3	2.3		3.3																		[19]
2021	Spain	277	median 77 days (IQR 72–85) post onset	34.8			21.4		17.8			5.4		15.2															[20]
2021	US	177	median 169 (range 31-300) days post onset	13.6	2.3		13.6																						[21]
2021	Italy	599	median 191 (IQR 172-204) days post onset	13.1			10.4		2.7			0.3																	[22]

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2021	Norway	676	mean 132 days (SD 35 days) after testing	23			14		13																	8			[23]
2021	Colombia	100	median 219 days (IQR: 143–258) post onset	34			15	11	45	1	31	21	23	36												42	38	[24]	
2021	Bangladesh	355	Continuous followup for atleast 1 month post recovery	33				2	3.4	3.9	2.3		0.3													0.6		[25]	

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2021	US	273,618	6 months post infection	12.82	22.82				8.6					7.8												3.2			[26]
2021	UK	327	Median 222 days post covid	83																									[27]
2022	UK	144	Mean of 143.3 days post onset	53.5			6.3	6.9		14.6				18															[28]

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2022	US	156	median 351 (range 82-457) post onset	82	67				60	59	54	~25	~30	~50															[29]
2022	Meta-analyses	10530		37	32	23	12	10	15	31				28												17			[30]
2022	Poland	2218	3 months post infection	35.6	12.1			4.4	29.8																				[31]
2022	Korea	900	6 months post infection	25.3	12	24.1	6.6	8.7	12.4	21.2	14.9		6.6	25.3				2.5											[32]



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2022	Korea	241	12 months	16.2	7.1	16.2	3.3	6.2	4.6	13.3	10.4		5.4	22.4				2.1											[32]
2022	Switzerland	1807 Covi d- pos, 882 Covi d-neg	Mean 83 days post positive test (mean 84 post negative test)				2.6	3.5		2.4																			[33]
2022	India	667	6 months	32.2			4.9	5.1	9.9	11.1																			[34]
2022	Bangladesh	659	Unclear	42			29							18															[35]

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2022	Netherlands	246 ICU admitted COVID pt.	1 yr post discharge	56.1		17.9	6.1	6.9	5.3		11.5	4.9		16.2		3.7									1.2	21.3		20.6	[36]
2022	Saudi Arabia	504	>12 weeks post covid	19.6		~4	~8	~14	~8																				[37]
2023	Italy	103	Mean 243 days post infection	56.3			56.3		45.6	29.1	6.8			45															[38]
2023	Ukraine	332	>4 weeks post infection	90	25			70		70																			[39]

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2023	Korea	440	>4 weeks post infection		38.6				31.1		29			23.6															[40]
2023	Sweden	204,805	270 (96% participants) and 360 (59% participants) days post positive test	29 in non-hospitalized;																									[41]
2023	Palestine	669	90 days post covid	14.9	2.4		7.3	4.6	9	6.3	1.9																		[42]
2022	Meta-analyses	55	Mean: 33.2 days									12.7			16.4						21.8								[43]

1. Patients showing neurological manifestations have been represented in percentages.
2. Columns of percentages for taste and smell dysfunction have been merged wherever they have been reported as single entity.
3. ~ used for approximate percentages where exact numerical data was not available in the study (have been taken from graphs)

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