

Chemistry Reference Range and Critical Value Changes

Effective Date: July 29, 2026

Effective July 29, 2026, the below changes will be made to reference ranges and critical values for the following testing performed on the laboratory's Abbott chemistry equipment.

REFERENCE RANGE CHANGES									
CHANGES EFFECTIVE 7/29/2026		PREVIOUS REFERENCE RANGES				NEW REFERENCE RANGES			
Test	Gender	Age	Reference Range		Units	Age	Reference Range		Units
ALBUMIN		0 - 6 DAYS	2.5	3.4	g/dL	0-15 DAYS	3.3	4.5	g/dL
		7 DAYS - 5 YEARS	3.9	5.0		15 DAYS - 1 YEAR	2.8	4.7	
		6 - 18 YEARS	4.0	5.3		1-19 YEARS	3.8	5.1	
		19 - 61 YEARS	3.5	5.1		19 - 60 YEARS	3.5	5.2	
		> 61 YEARS	3.5	4.9		> 60 YEARS	2.9	4.6	
ALT	Male	0 - < 1 YEAR	5	33	U/L	REPLACED BY ACTIVATED ALT			
		1 - 12 YEARS	9	25					
		13 - 18 YEARS	9	24					
		19 YEAR - ADULT	9	47					
	Female	0 - < 1 YEAR	5	33					
		1 - 12 YEARS	9	25					
		13 - 18 YEARS	8	22					
19 YEARS - ADULT		8	37						
ACTIVATED ALT	Male	NO PREVIOUS RANGES UTILIZED IN CHE				0 - 1 YEAR		<52	U/L
						1 - 12 YEARS		<31	
						12 - 18 YEARS		<34	
						18 YEARS - ADULT		<56	
	Female	NO PREVIOUS RANGES UTILIZED IN CHE				0 - 1 YEAR		<52	
						1 - 12 YEARS		<31	
12 - 18 YEARS							<25		
18 YEARS - ADULT							<56		
ALP	Male	0 - 14 DAYS	90	273	U/L	0 - 15 DAYS	90	273	U/L
		15 DAYS - < 1 YEAR	134	518		15 DAYS - 1 YEAR	134	518	
		1 - 9 YEARS	156	369		1 - 10 YEARS	156	369	
		10 - 12 YEARS	141	460		10 - 13 YEARS	141	460	
		13 - 14 YEARS	127	517		13 - 15 YEARS	127	517	
		15 - 16 YEARS	89	365		15 - 17 YEARS	89	365	
		17 - 18 YEARS	59	164		17 - 19 YEARS	59	164	
		> 19 YEARS	33	120		19 YEARS - ADULT	40	150	
	Female	0 - 14 DAYS	90	273		0 - 15 DAYS	90	273	
		15 DAYS - < 1 YEAR	134	518		15 DAYS - 1 YEAR	134	518	
		1 - 9 YEARS	156	369		1 - 10 YEARS	156	369	
		10 - 12 YEARS	141	460		10 - 13 YEARS	141	460	
		13 - 14 YEARS	62	280		13 - 15 YEARS	62	280	
		15 - 16 YEARS	54	128		15 - 17 YEARS	54	128	
		17 - 18 YEARS	48	95		17 - 19 YEARS	48	95	
		19 - 61 YEARS	33	120		19 YEARS - ADULT	40	150	
		> 61 YEARS	37	135					

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REFERENCE RANGE CHANGES									
CHANGES EFFECTIVE 7/29/2026		PREVIOUS REFERENCE RANGES				NEW REFERENCE RANGES			
Test	Gender	Age	Reference Range		Units	Age	Reference Range		Units
AMMONIA		ALL AGES	15	50	umol/L	ALL AGES	18	72	umol/L
AST (w/o P5P)		ALL AGES		< 35	U/L	REPLACED BY ACTIVATED AST			
ACTIVATED AST	Male	NO PREVIOUS RANGES UTILIZED IN CHE				0 - 14 DAYS		<187	U/L
						14 DAYS - 1 YEAR		<84	
						1 - 12 YEARS		<56	
						12 - 18 YEARS		<41	
						18 YEARS - ADULT		<35	
	Female	NO PREVIOUS RANGES UTILIZED IN CHE				0 - 14 DAYS		<187	
						14 DAYS - 1 YEAR		<84	
						1 - 12 YEARS		<56	
						12 - 18 YEARS		<34	
						18 YEARS - ADULT		<35	
CALCIUM		0 - < 1 YEAR	8.5	11.0	mg/dL	0 - 1 YEAR	8.5	11.0	mg/dL
		1 - 18 YEARS	9.2	10.7		1 - 19 YEARS	9.2	10.5	
		19 YEARS - ADULT	8.5	10.5		19 YEARS - ADULT	8.4	10.2	
CK, TOTAL	Male	ALL AGES	40	230	U/L	ALL AGES	30	200	U/L
	Female	ALL AGES	30	150		ALL AGES	29	168	
CARBON DIOXIDE		< 1 YEAR	20	28	mmol/L	0-15 DAYS	5	20	mmol/L
		1 - 13 YEARS	17	28		15 DAYS - 1 YEAR	10	24	
		> 13 YEARS	20	29		1-19 YEARS	14	28	
						19 YEARS - ADULT	19	29	
CREATININE	Male	0 - 14 DAYS	0.32	0.92	mg/dL	0 - 15 DAYS	0.32	0.92	mg/dL
		15 DAYS - < 2 YEARS	0.10	0.36		15 DAYS - 2 YEARS	0.10	0.36	
		2 - < 5 YEARS	0.20	0.43		2 - 5 YEARS	0.20	0.43	
		5-<12 YEARS	0.31	0.61		5-12 YEARS	0.31	0.61	
		12 - <15 YEARS	0.45	0.81		12 - 15 YEARS	0.45	0.81	
		15 - <19 YEARS	0.62	1.08		15 - 19 YEARS	0.62	1.08	
		19 - ADULT	0.60	1.30		19 YEARS - ADULT	0.6	1.3	
	Female	0 - 14 DAYS	0.32	0.92		0 - 15 DAYS	0.32	0.92	
		15 DAYS - < 2 YEARS	0.10	0.36		15 DAYS - 2 YEARS	0.10	0.36	
		2 - <5 YEARS	0.20	0.43		2 - 5 YEARS	0.20	0.43	
		5 - <12 YEARS	0.31	0.61		5-12 YEARS	0.31	0.61	
		12 - <15 YEARS	0.45	0.81		12 - 15 YEARS	0.45	0.81	
		15 - <19 YEARS	0.49	0.84		15 - 19 YEARS	0.49	0.84	
		19 - ADULT	0.50	1.10		19 YEARS - ADULT	0.5	1.2	
CRP		ALL AGES		< 8.0	mg/L	ALL AGES		≤5	mg/L
eGFR		ALL AGES	> 60		mL/min/1.73 m²	ALL AGES	≥60		mL/min/1.73 m²
POTASSIUM		0 - 1 DAY	5.0	7.5	mmol/L	0 - 3 DAYS	4.5	6.5	mmol/L
		2 DAYS - 3 MONTHS	4.0	6.0		3 DAYS - 3 MONTHS	3.8	5.5	
		4 MONTHS - ADULT	3.5	5.2		3 MONTHS - ADULT	3.5	5.2	

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REFERENCE RANGE CHANGES									
CHANGES EFFECTIVE 7/29/2026		PREVIOUS REFERENCE RANGES				NEW REFERENCE RANGES			
Test	Gender	Age	Reference Range		Units	Age	Reference Range		Units
LD	Male	0 - 30 DAYS	125	735	U/L	0 - 15 DAYS	309	1222	U/L
		31 DAYS - 12 MONTHS	170	450		15 DAYS - 1 YEAR	163	452	
		13 MONTHS - 3 YEARS	155	345		1 - 10 YEARS	192	321	
		4 - 6 YEARS	155	345		10 - 15 YEARS	170	283	
		7 - 9 YEARS	145	300		15 - 19 YEARS	130	250	
		10 - 12 YEARS	120	325		19 YEARS - ADULT	125	220	
		13 - 15 YEARS	120	290					
		16 - 18 YEARS	105	235					
		19 - ADULT	100	240					
	Female	0 - 30 DAYS	145	765		0 - 15 DAYS	309	1222	
		31 DAYS - 12 MONTHS	190	420		15 DAYS - 1 YEAR	163	452	
		13 MONTHS - 3 YEARS	165	395		1 - 10 YEARS	192	321	
		4 - 6 YEARS	135	345		10 - 15 YEARS	157	272	
		7 - 9 YEARS	140	280		15 - 19 YEARS	130	250	
		10 - 12 YEARS	120	260		19 YEARS - ADULT	125	220	
		13 - 15 YEARS	100	275					
		16 - 18 YEARS	105	230					
		19 - ADULT	100	240					
LIPASE		ALL AGES	7	60	U/L	ALL AGES		≤64	U/L
MAGNESIUM		ALL AGES	1.7	2.5	mg/dL	ALL AGES	1.6	2.6	mg/dL
SODIUM		0 - 1 DAY	126	166	mmol/L	0 - 3 YEARS	132	144	mmol/L
		2 - 29 DAYS	134	144		3 YEARS - ADULT	134	146	
		30 DAYS - 1 YEAR	139	146					
		2 - 12 YEARS	138	145					
		13 YEARS - ADULT	135	145					
PHOSPHORUS		0 - 14 DAYS	5.6	10.5	mg/dL	0 - 15 DAYS	5.6	10.5	mg/dL
		15 DAYS - 1 YEAR	4.8	8.4		15 DAYS - 1 YEAR	4.8	8.4	
		1 - 4 YEARS	4.3	6.8		1 - 5 YEARS	4.3	6.8	
		5 - 12 YEARS	4.1	5.9		5 - 13 YEARS	4.1	5.9	
		13 - 15 YEARS	3.2	6.2		13 - 16 YEARS	3.2	6.2	
		16 - 18 YEARS	2.9	5.0		16 - 19 YEARS	2.9	5.0	
		19 - ADULT	2.3	4.4		19 YEARS - ADULT	2.5	4.5	
UREA (BUN)		0- 14 DAYS	3	23	mg/dL	0- 15 DAYS	3	23	mg/dL
		15 DAYS - < 1 YEAR	3	17		15 DAYS - 1 YEAR	3	17	
		1 - 10 YEARS	9	22		1 - 11 YEARS	9	22	
		11 - 18 YEARS	7	21		11 - 19 YEARS	7	21	
		19 - ADULT	7	25		19 YEARS - ADULT	7	26	
URIC ACID	Male	0 - 13 YEARS	1.5	7.6	mg/dL	0- 15 DAYS	2.8	12.7	mg/dL
		14 YEARS - ADULT	3.5	7.2		15 DAYS - 19 YEARS	1.6	7.6	
	Female					19 YEARS - ADULT	3.7	7.7	
		ALL AGES	2.6	6.0		0- 15 DAYS	2.8	12.7	
						15 DAYS - 19 YEARS	1.6	6.3	
						19 YEARS - ADULT	2.5	6.2	
CREATININE CLEARANCE, URINE	Male	ALL AGES	75	115.0	mL/min	ALL AGES	61	147	mL/min
	Female	ALL AGES	90	130.0		ALL AGES	59	151	
GLUCOSE, CSF		ADULT	50	80	mg/dL	ALL AGES	40	70	mg/dL
VALPROIC ACID		<15 YEARS	50	150	mcg/mL	ALL AGES	50	100	mcg/mL
		>15 YEARS	50	100					

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CHANGES EFFECTIVE 7/29/2026		PREVIOUS REFERENCE RANGES				NEW REFERENCE RANGES			
Test	Gender	Age	Reference Range		Units	Age	Reference Range		Units
FREE T4		NON-PREGNANT ADULT	0.7	1.5	ng/dL	0-1 YEAR	0.8	1.5	ng/dL
		PEDIATRICS (0 TO 9 DAYS)	0.5	1.7		1-19 YEARS	0.8	1.1	
						19 YEARS - ADULT	0.7	1.5	
	PREGNANCY	1ST TRIMESTER	0.7	1.5		1ST TRIMESTER	0.7	1.5	
		2ND TRIMESTER	0.5	1.0		2ND TRIMESTER	0.5	1.0	
		3RD TRIMESTER	0.5	1.0		3RD TRIMESTER	0.5	1.0	
TSH		CORD BLOOD	1.00	39.00	uIU/mL	0-2 DAYS	3.2	34.6	uIU/mL
		0 - 2 DAYS	3.20	34.60		2-5 DAYS	0.7	15.4	
		3 - 4 DAYS	0.70	15.40		5 DAYS - 1 MONTH	1.7	9.1	
		5 DAYS - < 1 MONTH	1.70	9.10		1 MONTH - 1 YEAR	0.8	8.2	
		1 MONTH - < 1 YEAR	0.80	8.20		1 YEAR - ADULT	0.4	4.5	
		1 YEAR - ADULT	0.40	4.50					
	PREGNANCY	1ST TRIMESTER	0.26	2.66		1ST TRIMESTER	0.26	2.66	
		2ND TRIMESTER	0.55	2.73		2ND TRIMESTER	0.55	2.73	
		3RD TRIMESTER	0.43	2.91		3RD TRIMESTER	0.43	2.91	

CRITICAL VALUE CHANGES								
CHANGES EFFECTIVE 7/29/2026		PREVIOUS CRITICAL VALUES			NEW CRITICAL VALUES			
TEST	Age	Greater Than	Less Than	Units	Age	Greater Than	Less Than	Units
BILIRUBIN, TOTAL	0 - 23 HOURS	7.9	--	mg/dL	0 - 24 HOURS	8.6	--	mg/dL
	24 - 35 HOURS	10.9	--		24 - 36 HOURS	10.5	--	
	36 - 47 HOURS	13.9	--		36 - 48 HOURS	12.0	--	
	48 - 59 HOURS	14.9	--		48 - 60 HOURS	13.4	--	
	60 - 71 HOURS	15.9	--		60 - 72 HOURS	15.0	--	
	72 - 83 HOURS	16.9	--		72 - 84 HOURS	15.4	--	
	84 - 144 HOURS	17.9	--		84 - 144 HOURS	16.0	--	
	145 HOURS - 13 DAYS	15.0	--		144 HOURS -15 DAYS	16.3	--	
	14 - 20 DAYS	15.0	--		15 - 21 DAYS	15.0	--	
SODIUM	0 - 1 DAY	166	120	mmol/L	<18 YEARS	160	129	mmol/L
	2 DAYS – 17 YEARS	155	125		>18 YEARS	160	120	
	18 - 116 YEARS	160	120					
	> 116 YEARS	155	125					
POTASSIUM	0 - 1 DAY	7.5	2.7	mmol/L	0-90 DAYS	6.5	2.5	mmol/L
	2 DAYS – ADULT	6.0	2.5		>90 DAYS	6.0	3.0	
CARBON DIOXIDE	ALL AGES	40	10	mmol/L	0 - 15 DAYS	40	5	mmol/L
					15 DAYS - ADULT	40	10	

For questions regarding testing, please contact Corewell Health Laboratory Customer Service at **800-551-0488**.

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