Sarcopenia

Measure with InGrip and InBody!

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✓ Sarcopenia Is Now a Recognized Disease

Accurate equipment is essential for disease diagnosis.



✓ InBody + InGrip = Sarcopenia Diagnosis Result Sheet

InGrip can be connected to InBody, allowing for a simple diagnosis of sarcopenia through the Result Sheet.



Hand Grip Strength: a Better Indicator of a Healthier Life

Hand Grip Strength is one of the strongest **biomarkers** for predicting health.

Increase Data(0/)	When Hand O Decrease	Grip Strength es by 5 kg	Weak Hand Grip Strength		
Increase Rate(%)	Female	Male	Female	Male	
Mortality	20%	16%	39%	67%	
Cardiovascular Disease	15%	11%	30%	36%	
COPD	20%	15%	45%	38%	
Cancer	10%	6%	21%	23%	

* Carlos A Celis-Morales. Associations of grip strength with cardiovascular, respiratory, and cancer outcomes and all cause mortality: prospective cohort study of half a million UK Biobank participants. BMJ 2018; 361 doi: https://doi.org/10.1136/bmj.k1651 (Published 08 May 2018)

✓ Check Strength Training Effects through Muscle Health Test

Increases in muscular strength should be analyzed in relation to both muscle hypertrophy and neuromuscular factors.

- Initial Strength Training (8-20 weeks)
- = Muscular Strength 🕇 + Lean Mass 🔶 = Apparent Gains
- Consistent Strength Training

= Muscular Strength **1** + Lean Mass **1** = Real Strength Gains

InBody + InGrip = Muscle Health Test Result Sheet

You can now assess the effects of strength training using a single InBody Result Sheet.



Another Recommendation for Your Health Checkup

Sarcopenia

Check both body composition and assess sarcopenia with the InBody Test!



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Chen LK, Woo J, Assantachai P, Auyeung TW, Chou MY, Iijima K, et al. Asian Working Group for Sarcopenia: 2019 consensus update on sarcopenia diagnosis and treatment. J Am Med Dir Assoc 2020;21:300-7. e2.

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InGrip can be connected to InBody via Bluetooth, allowing for a simple diagnosis of sarcopenia through the Result Sheet.





Healthy Lifestyle Program for Community Residents by Public Health Centers

Start with a Sarcopenia Assessment

By simply connecting the **InBody** Handgrip Strength Dynamometer to your existing **InBody** body composition analyzer, you can easily perform a "sarcopenia assessment."

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InBody + InGrip

Connecting the Two Enables Access to a Wider Range of Results

ID			He	ight		Age		Gende	r Test	Date /	Time
Jane Doe			15	6.9ci	m	51		Femal	e 03.3	1.202	515:44
Body Co	mpo	sitior	An	alys	is			Marcal	Fet Free N		Mainht
Total Body Wat	er(L)	27	.7	IOIal	27.7	ler Son	Lea	ii mass	rat Free W	1355	weight
Protein	(kg)	(27.0~	33.0) 3		21.1	(34	35	.4 42.3)	37.6 (36.7~44	1.8)	59.1
Minerals	(kg)	2.6 (2.49~	5 3.05)	non-or	sseous					(4	15.0 ~ 60.8)
Body Fat Mass	(kg)	21 (10.6~	.5 16.9)								
Muscle-F	at A	naly	sis								
		Un	der		Normal				Over		
Weight	(kg)	55	70	85	100	¹¹⁵ 59.	130 1	145	160	175 18	0 205 %
SMM Skeletal Muscle Mass	(kg)	70	80	90	100 9.8	110	120	130	140 1	50 16	0 170 %
Body Fat Mass	(kg)	40	60	80	100	160	220	280 21.5	340 4	00 46	0 520 %
) hesity/	Anal	vsis									
Jucony		Un	der	110	Normal				Over		
BMI Body Mass Index (kg/m²)	10.0	15.0	18.5	21.5	25.0	30.0)	35.0	40.0 4	5.0 50	0 55.0
PBF Percent Body Fat	(%)	8.0	13.0	18.0	23.0	28.0	33.0	38.0	43.0 4	8.0 53	0 58.0
segment	al L	ean A	naly	VS1S	Normal	Based or	ideal	weight -	Based	on current	ECW Ratio
	4.0	40	60	80	100	120	140	160	180 2	oo %	Lon Rulio
Right Arm	(%)	==	-		- 99. 99.	.00 8					0.378
_eft Arm	(kg) (%)	40	60	80	100	2 ¹²⁰	140	160	180 2	ióo %	0.379
Trunk	(kg) (%)	70	80	90	100 17. 97.4	,110 .7	120	130	140 1	50 %	0.398
Right Leg	(kg) (%)	70	80	90 5.24 82.8	100	110	120	130	140 1	50 %	0.403
Left Leg	(kg) (%)	70	80	5.16 1.5	100	110	120	130	140 1	50 %	0.404
ECW Ra	tio A	Analy	sis								
		Un	der		Normal				Over		
		0.320	0.340	0.360	0.380	0.390	0.400	0 0.410 398	0.420 0.	430 0.4	40 0.450
ECW Ratio		sition	Hi	stor	y						
ECW Ratio Body Co	mpo	65 2	6	3.9	62.4	61.	8	62.3	60.9	60.5	59.1
ECW Ratio Body Co Weight	mpo (kg)	05.5					-	19.8	19.7	19.8	3 19.8
ECW Ratio Body Co Weight SMM Retell Muscle Mass	mpo (kg) (kg)	20.1	2	0.0	19.7	19.	/				-
ECW Ratio Body Co Weight SMM Referent Body Fat	mpo (kg) (kg) (%)	20.1	2	0.0	<u>19.7</u> 39.2	19. 39.	.0	39.4	38.6	37.7	36.3
ECW Ratio Body Co Weight SMM Skeletal Muscle Mass PBF Percent Body Fat ECW Ratio	(kg) (kg) (%)	20.1 41.3 0.39	2 4 9 0.	0.0 0.7 398	<u>19.7</u> 39.2 0.396	19. 39. 0.3	.0	39.4 0.397	38.6 0.396	37.7 0.39	7 <u>36.3</u> 8 0.398



-<u>3000</u> kHz Z(Ω) RA LA

TR RL LL TR

InBody inbody.com

✓ Sarcopenia Parameters

- SMI (Skeletal Muscle Mass Index): Appendicular Skeletal Muscle Mass/Height Squared (m²)

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- HGS (Hand Grip Strength): Absolute Muscular Strength
- Both SMI and HGS below cut-off indicate sarcopenia.
- Criteria: AWGS (Asian Working Group Sarcopenia.2019)

Sarcopenia Parameters						
SMI	5.8 kg/m^2 (< 5.5)				
HGS	15.8 kg (< 16.0)				

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