

KEY PINCH NORMS

NORMS FOR ADULT PINCH STRENGTH Key Pinch strength performance of all subjects (pounds)							
age	hand	men mean	SD	low-high	women mean	SD	low-high
20-24	dominant	26.0	3.5	21-34	17.6	2.0	14-23
	non-dominant	24.8	3.4	19-31	16.2	2.1	13-23
25-29	dominant	26.7	4.9	19-41	17.7	2.1	14-22
	non-dominant	25.0	4.7	19-39	16.6	2.1	13-22
30-34	dominant	26.4	4.8	20-36	18.7	3.0	13-25
	non-dominant	26.2	5.1	17-36	17.8	3.6	12-26
35-39	dominant	26.1	3.2	21-32	16.6	2.0	12-21
	non-dominant	25.6	3.9	18-32	16.0	2.7	12-22
40-44	dominant	25.6	2.6	21-31	16.7	3.1	10-24
	non-dominant	25.1	4.0	19-31	15.8	3.1	8-22
45-49	dominant	25.8	3.9	19-35	17.6	3.2	13-24
	non-dominant	24.8	4.4	18-42	16.6	2.9	12-24
50-54	dominant	26.7	4.4	20-34	16.7	2.5	12-22
	non-dominant	26.1	4.2	20-37	16.1	2.7	12-22
55-59	dominant	24.2	4.2	18-34	15.7	2.5	11-21
	non-dominant	23.0	4.7	13-31	14.7	2.2	12-19
60-64	dominant	23.2	5.4	14-37	15.5	2.7	10-20
	non-dominant	22.2	4.1	16-33	14.1	2.5	10-19
65-69	dominant	23.4	3.9	17-32	15.0	2.6	10-21
	non-dominant	22.0	3.6	17-28	14.3	2.8	10-20
70-75	dominant	19.3	2.4	16-25	14.5	2.9	8-22
	non-dominant	19.2	3.0	13-28	13.8	3.0	9-22
75+	dominant	20.5	4.6	9-31	12.6	2.3	8-17
	non-dominant	19.1	3.0	13-24	11.4	2.6	7-16
ALL	dominant	24.5	4.6	9-41	16.2	3.0	8-25
	non-dominant	23.6	4.6	11-42	15.3	3.1	7-26

PALMER PINCH NORMS

NORMS FOR ADULT PINCH STRENGTH Palmer Pinch strength performance of all subjects (pounds)							
age	hand	men mean	SD	low-high	women mean	SD	low-high
20-24	dominant	26.6	5.3	18-45	17.2	2.3	14-23
	non-dominant	25.7	5.8	15-42	16.3	2.8	11-24
25-29	dominant	26.0	4.3	19-35	17.7	3.2	13-29
	non-dominant	25.1	4.2	19-36	17.0	3.0	13-26
30-34	dominant	24.7	4.7	16-34	19.3	5.0	12-34
	non-dominant	25.4	5.7	15-37	18.1	4.8	12-32
35-39	dominant	26.2	4.1	19-36	17.5	4.2	13-29
	non-dominant	25.9	5.4	14-40	17.1	3.4	12-24
40-44	dominant	24.5	4.3	17-37	17.0	3.1	10-23
	non-dominant	24.8	4.9	15-37	16.6	3.5	14-25
45-49	dominant	24.0	3.3	19-33	17.9	3.0	12-27
	non-dominant	23.7	3.8	8-33	17.5	2.8	12-24
50-54	dominant	23.8	5.4	15-36	17.3	3.1	12-23
	non-dominant	24.0	5.8	16-36	16.4	2.9	12-22
55-59	dominant	23.7	4.8	16-34	16.0	3.1	11-26
	non-dominant	21.3	4.5	12-25	15.4	3.0	11-21
60-64	dominant	21.8	3.3	16-28	14.8	3.1	10-20
	non-dominant	21.2	3.2	15-27	14.3	2.7	10-20
65-69	dominant	21.4	3.0	15-25	14.2	3.1	8-20
	non-dominant	21.2	4.1	14-30	13.7	3.4	8-22
70-75	dominant	18.1	3.4	14-27	14.4	2.6	9-19
	non-dominant	18.8	3.3	13-27	14.0	1.9	10-17
75+	dominant	18.7	4.2	9-26	12.0	2.6	8-17
	non-dominant	18.3	3.8	10-26	11.5	2.6	6-16
ALL	dominant	23.4	5.0	9-45	16.3	3.8	8-34
	non-dominant	23.0	5.3	10-42	15.7	3.6	6-32

Parts / Specifications

WARNING:

- Clean contact surfaces between each patient
- Verify zero position before measurements
- Ensure proper finger placement
- Do not exceed device's force range
- Stop if patient experiences discomfort
- Keep device properly calibrated
- Store in protective case
- Inspect for loose parts before use
- Check gauge accuracy regularly

Tolerances:

- The 2 lb mechanical pinch gauge is tested for accuracy at 0.5, 1, 1.5, and 2 lbs. At 0.5 lb and 1 lb it has an accuracy of ± 0.02 lb. At 1.5 lb it has an accuracy of ± 0.03 lb. At 2 lb it has an accuracy of ± 0.06 lb.
- The 10 lb mechanical pinch gauge has an accuracy of ± 0.5 lb.
- The 30 lb mechanical pinch gauge has an accuracy of ± 1 lb.
- The 60 lb mechanical pinch gauge has an accuracy of ± 2 lb.

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12-0200
12-0201
12-0202
12-0203
12-0209

rev0325



BASELINE[®] EVALUATION INSTRUMENTS

Mechanical Pinch Gauge



Instructions for use

12-0200, 12-0201, 12-0202, 12-0203

Intended Purpose

The mechanical pinch gauge is a medical/therapeutic device designed to measure finger pinch strength during tip, key, and palmer pinch motions for hand assessment and evaluation.

- The Baseline® mechanical pinch gauge uses a mechanical measurement system to assure convenience, product reliability and measurement accuracy and repeatability.
- The therapist can support the pinch gauge during testing. This yields a more accurate result for all pinch tests including tip, key and palmer.
- The results are consistent with published Baseline® and Jamar® studies.
- Maximum output indicator reading remains until the unit is reset using the reset knob.
- The strength reading can be viewed as pounds or kilograms.
- Portable measuring unit comes with rugged carrying case.
- Available in 2 and 10 lb capacities for weak or damaged hands, and 30 and 60 lb capacities for orthopedic or sports medicine use.
- 2-year manufacturers warranty.
- CE listed.



12-0209 (case only)

Quick Operating Guide

1) SET UP GAUGE BEFORE OPERATION

- a. Hold unit in one hand from bottom of frame.
- b. Turn outside dial to set zero inline with black indicator needle.
- c. Turn reset knob to turn red maximum output indicator until it's one measure in front of the black indicator.

Repeat these steps after each test to reset the maximum output indicator



2) OPERATING MECHANICAL PINCH GAUGE

- a. Allow patient to pinch down on Mechanical Pinch Gauge.
- b. If black indicator goes all the way around past max readings, use next strength gauge.



Testing Protocol: Mechanical Pinch Gauge

The Mechanical Pinch Gauge is used to measure pinch strength. It is calibrated in pounds and kilograms of force. Apply pinch force at the pinch groove while holding the pinch gauge between your thumb and finger(s). When force is applied further toward the tip the reading will be slightly higher.

Use the pinch gauge to perform the three basic pinch tests:

- **Tip Pinch** (thumb-index pulp pinch) – thumb tip to index fingertip
- **Key Pinch** (lateral pinch) – thumb pad to lateral aspect of middle phalanx of index finger
- **Palmer Pinch** (chuck pinch) – thumb pad to pads of the index and middle fingers



Tip (pulp pinch)



Key (lateral pinch)



Palmer (chuck pinch)

TIP PINCH NORMS

NORMS FOR ADULT PINCH STRENGTH Tip Pinch strength performance of all subjects (pounds)							
age	hand	men mean	SD	low-high	women mean	SD	low-high
20-24	dominant	18.0	3.0	11-23	11.1	2.1	8-16
	non-dominant	17.0	2.3	12-33	10.5	1.7	8-14
25-29	dominant	18.3	4.4	10-34	11.9	1.8	8-16
	non-dominant	17.5	5.2	12-36	11.3	1.8	9-18
30-34	dominant	17.4	6.7	12-25	12.6	3.0	8-20
	non-dominant	17.6	4.8	10-27	11.7	2.8	7-17
35-39	dominant	18.0	3.6	12-27	11.6	2.5	8-19
	non-dominant	17.7	3.8	10-24	11.9	2.4	8-16
40-44	dominant	17.8	4.0	11-25	11.5	2.7	5-15
	non-dominant	17.7	3.5	12-25	11.1	3.0	6-17
45-49	dominant	18.7	4.9	12-30	13.2	3.0	9-19
	non-dominant	17.6	4.1	12-28	12.1	2.7	7-18
50-54	dominant	18.3	4.0	11-24	12.5	2.2	9-18
	non-dominant	17.8	3.9	12-26	11.4	2.4	7-16
55-59	dominant	16.6	3.3	11-24	11.7	1.7	9-16
	non-dominant	15.0	3.7	10-26	10.4	1.4	8-13
60-64	dominant	15.8	3.9	9-22	10.1	2.1	7-17
	non-dominant	15.3	3.7	9-23	9.9	2.0	6-15
65-69	dominant	17.0	4.2	11-27	10.6	2.0	7-15
	non-dominant	15.4	2.9	10-21	10.5	2.4	7-17
70-75	dominant	13.8	2.6	11-21	10.1	2.6	7-15
	non-dominant	13.3	2.6	10-21	9.8	2.3	6-17
75+	dominant	14.0	3.4	7-21	9.6	2.8	4-16
	non-dominant	13.9	3.7	8-25	9.3	2.4	4-13
ALL	dominant	17.0	4.1	7-34	11.3	2.6	4-20
	non-dominant	16.4	4.0	8-36	10.8	2.4	4-18

	PATIENT START POSITION	PLACEMENT OF PINCH GAUGE	POSITION OF THERAPIST	TEST
TIP (PULP) PINCH (RIGHT/LEFT ON EACH FINGER)	- seated or upright - test arm at side with elbow flexed 90° - palm facing down - test finger on button	Pinch gauge between thumb and test finger (make sure other fingers do not interfere).	In front of patient, to the side, stabilizing pinch gauge.	Have patient squeeze, hold and release.
KEY (LATERAL) PINCH (RIGHT/LEFT)	- seated or upright - test arm at side with elbow flexed 90° - palm facing inward	Pinch gauge between flexed PIP joint of index finger and thumb.	In front of patient, to the side, stabilizing pinch gauge.	Have patient squeeze, hold and release.
PALMER (CHUCK) PINCH (RIGHT/LEFT)	- seated or upright - test arm at side with elbow flexed 90° - palm facing down	Pinch gauge between thumb and the index and middle fingers.	In front of patient, to the side, stabilizing pinch gauge.	Have patient squeeze, hold and release.