

# 9.3.1 Pitch suggestion chart (flexibility vs. forward pitch)


## Pitch suggestion chart (flexibility vs. forward pitch)

9.3.1 [reference](#)

This reference chart maps the relationship between a bowler's hand flexibility and the appropriate forward pitch range for the finger holes. Forward pitch is one of the most impactful fitting decisions on a spec sheet — too much forward pitch locks the fingers in, too little (or reverse pitch) causes them to exit too early. Flexibility is the primary physical characteristic that determines where in the pitch range a bowler belongs. This chart gives you a quick starting point for the pitch conversation before measurements are taken and before auto-suggestions are generated.

### How to Use This Chart

Assess the bowler's hand flexibility using the simple test described below, then locate their flexibility category in the chart. The chart gives a recommended forward pitch starting range for the finger holes — not a fixed value, but a zone within which the fitting should begin. Auto-suggestions in Spectre Cloud will refine this further once measurements are entered; this chart serves as a pre-measurement orientation and a useful cross-check against those suggestions.

 **Note:** This chart covers **finger hole forward pitch** only. Thumb pitch, lateral pitch, and oval cut values are not addressed here — see the related sections at the bottom of this page for those references.

# □ Assessing Hand Flexibility

A quick flexibility assessment takes under thirty seconds and requires no tools beyond the bowler's hand. Ask the bowler to extend their fingers straight out, then curl them toward the palm as if gripping a ball. Observe how naturally and completely the fingers curl:

Flexibility category	What you observe	Typical bowler profile
<b>Very flexible</b>	Fingers curl fully and easily past 90° — knuckles bend well beyond a right angle with no resistance	Younger bowlers, bowlers with naturally hypermobile joints, some women and junior bowlers
<b>Flexible</b>	Fingers curl easily to 90° and slightly beyond with minimal resistance	Most recreational and league bowlers without joint stiffness; standard adult range
<b>Average</b>	Fingers curl comfortably to approximately 90° — normal, unrestricted grip position	The majority of adult bowlers; typical starting assumption for an unknown bowler
<b>Stiff</b>	Fingers curl to approximately 90° but with noticeable effort or slight resistance	Older bowlers, bowlers with early-stage arthritis, bowlers returning after a hand injury
<b>Very stiff</b>	Fingers do not reach 90° comfortably — significant resistance before the grip position is reached	Bowlers with moderate to severe arthritis, significant joint stiffness, or restricted range of motion

# □□ Forward Pitch Starting Range by Flexibility

Flexibility category	Fingertip — forward pitch range	Conventional — forward pitch range	Notes
Very flexible	0 to 1/8" forward	0 to 1/8" forward	Very flexible bowlers often need minimal forward pitch — too much creates a locked, uncomfortable release. Zero pitch or slight forward is the common fit.
Flexible	1/8" to 1/4" forward	1/8" to 1/4" forward	Standard range for most comfortable, unrestricted grips. Auto-suggestions typically fall here for average adult measurements.

Flexibility category	Fingertip — forwardpitch range	Conventional — forward pitch range	Notes
Average	1/4" to 3/8" forward	1/4" to 3/8" forward	Most common range for recreational and league bowlers. IBPSIA standard suggestions for typical measurements land in this range.
Stiff	3/8" to 1/2" forward	3/8" to 1/2" forward	Higher forward pitch compensates for reduced flexibility by making the hole more accessible at the grip position.
Very stiff	1/2" to 3/4" forward	1/2" to 3/4" forward	Significant forward pitch required for comfort. Oval holes may also be beneficial to further ease grip entry and exit.

⚠ **Verify with Spectre team:** Confirm these pitch ranges against the IBPSIA standard values used as the basis for Spectre Cloud's auto-suggestion algorithm, and update the chart if the app's reference values differ from those used here.

## ⚖ Factors That Shift the Starting Range

The chart above is a starting point. Several bowler-specific factors push the appropriate pitch value toward the lower or upper end of the range — or outside it entirely:

### Factors that push toward less forward pitch (lower end or below range)

- **High rev rate** — aggressive release bowlers often prefer less forward pitch for a cleaner, faster finger exit.
- **Long fingers relative to span** — fingers that extend well beyond the first knuckle in the hole may feel over-secured with standard forward pitch.
- **Bowler reports fingers feel locked in** — the most direct signal that forward pitch is too high for this bowler.
- **Two-handed bowler** — as noted in section 9.2.6, standard forward pitch values often do not apply. Start conservatively.

# Factors that push toward more forward pitch (upper end or above range)

- **Shorter fingers relative to span** — fingers that sit more shallowly in the hole may need more forward pitch to remain secure through the swing.
- **Bowler reports fingers feel loose or slide out early** — a direct signal that forward pitch may need to increase.
- **Arthritis or joint swelling that is not fully captured by the flexibility test** — the flexibility test assesses range of motion, not pain. A bowler who can reach average flexibility but experiences pain doing so may functionally benefit from stiff-category pitch values.
- **Conventional grip bowlers generally** — conventional grips often sit at the higher end of the range for their flexibility category compared to fingertip bowlers with the same flexibility.

## Using This Chart Alongside Auto-Suggestions

This chart and Spectre Cloud's auto-suggestion system approach pitch from different directions — the chart starts with physical observation, the auto-suggestion starts with measurements. When used together they provide a useful cross-check:

- **Chart and suggestion agree** — high confidence. Proceed with the suggested value.
- **Chart range is lower than the suggestion** — check whether the bowler has unusual flexibility for their measurements. The suggestion may be technically correct but the bowler may be more comfortable with a lower value than standard.
- **Chart range is higher than the suggestion** — check whether the flexibility assessment identified significant stiffness that the measurement formula does not capture directly. Consider adjusting upward toward the chart range.
- **Significant disagreement between chart and suggestion** — re-assess flexibility and re-verify measurements before deciding. A large discrepancy often signals either an unusual bowler profile or a measurement entry issue.

## Quick Reference — Pitch Starting Points by Bowler Type

Bowler type	Typical starting forward pitch
Junior bowler (under 18, typical flexibility)	1/8" to 1/4" forward
Adult recreational bowler, fingertip	1/4" to 3/8" forward
Adult recreational bowler, conventional	1/4" to 3/8" forward
Competitive league bowler, fingertip	1/4" to 3/8" forward — adjust per release
Senior bowler (65+), average flexibility	3/8" to 1/2" forward
Senior bowler with arthritis	1/2" to 3/4" forward
High rev rate cranker, fingertip	1/8" to 1/4" forward — sometimes zero
Two-handed bowler, no thumb	1/8" to 1/4" forward — start conservatively
Bowler returning after finger injury	Start at upper end of flexibility range — adjust from bowler feedback

## ☐ A Note on Reverse Pitch

Reverse pitch — where the bottom of the hole tilts away from the palm — is not covered by this chart because it is rarely a starting point for a fitting. It typically emerges as an adjustment for specific bowlers whose release characteristics make forward pitch counterproductive. The situations where reverse finger pitch may be appropriate include:

- ☐ Very high rev rate bowlers who report their fingers catching or dragging through the release despite minimal forward pitch.
- ☐ Bowlers who have been on forward pitch for many years and want to experiment with a cleaner, earlier exit.
- ☐ Bowlers with unusual finger anatomy where the joint geometry is better served by a slight reverse angle.

Reverse pitch on finger holes is an advanced adjustment — it should be reached by deliberate fitting progression rather than used as a default starting point for any bowler profile.

## Related Sections

- 9.1.4 — Using Auto-Suggestions effectively for faster fitting sessions
- 9.2.3 — The suggested pitch is not what I expect — is Auto-Suggestion on
- 9.2.4 — How do I switch a bowler from fingertip to conventional mid-session
- 9.2.6 — How do I document a bowler who is a two-hander (no thumb)
- 6.1.3 — Step 3: Set grip type and enter finger measurements
- 5.6.5 — Choosing EDGE vs. CENTER: which method fits which bowler

☐ **Tip:** Keep a laminated copy of the quick-reference table at the fitting counter. A bowler who walks in without an appointment and without a previous spec sheet can be oriented to a starting

pitch range in under a minute using only the flexibility test and this chart — giving you a confident starting point for the fitting conversation before a single measurement has been taken.

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