



TECHNICAL-FUNCTIONAL REPORT

Pre-anchor block and premature string slip

Functional assessment and return-to-shooting plan

ATHLETE	DISCIPLINE	AGE	DATE
C.	Archery	80 years	May 2026

BASELINE PICTURE

Reported equipment	Bow of roughly 40 lb. Isometric work at anchor for 6 seconds. Trials with an arrow, without a release and with a controlled let-down of the string.
Main symptom	The string slips from the fingers before reaching anchor. Out of roughly 200 reported shots, it reaches anchor only about ten times.
Context	The problem appears at 5 m, 18 m and 40 m. At 18 m the group can stay tight, whereas at long distances it opens up considerably.
Key finding	With a finger loop threaded onto the fingers, similar to the loop used with mechanical release aids, C. manages to reach anchor.
General factors	A period of intense stress, worrying blood-test findings, skin blotches, and reported physical/psychological problems.

OVERALL PICTURE

The problem of C. does not present as a simple technical loss: the most coherent picture is a task-specific loss of finger-string control in the pre-anchor phase, fuelled by target panic / pre-anchor yips, a possible dystonic component, finger-flexor overload, and systemic stress.

PROFESSIONAL DISCLAIMER

- This document does not make a medical diagnosis: it makes a functional coaching diagnosis and a prudent management strategy.
- In the case of C., coaching must proceed only after, or in parallel with, a targeted medical assessment, because age, a new symptom, and the systemic picture demand caution.
- The priority is not to make him shoot better right away. It is to stop consolidating the pattern in which the string slips off the fingers before anchor.

01 EXECUTIVE SUMMARY

The picture indicates an extremely specific loss of control in the transition draw → approach to anchor → maintenance of the finger-string hook. This detail is decisive: the problem does not set in only when he aims at the centre, does not appear only at long distances, and does not seem to depend primarily on eyesight or on managing the arrow's arc. It appears within the movement itself, before anchor.

The finger-loop finding is the linchpin of the whole line of reasoning. If, with a finger loop on the fingers, C. manages to reach anchor, then the shoulder-back chain is probably still capable of completing the draw. The fragile point is more likely the finger-forearm-motor-control system: the point where the brain must keep the hook on the string while the movement approaches the position perceived as critical.

The problem should be read as a multifactorial phenomenon: a task-specific psychomotor core, probably triggered or aggravated by heavy isometric work, within a body that right now has less neurological, tendinous, psychological, and systemic reserve. In other words: the shot has broken down at the point where it demands fine control, trust in the finger-string hook, and load tolerance. The general stress of this period, age, draw weight, and the possible medical factors are not irrelevant details.

LEVEL	MECHANISM	WHY IT IS PLAUSIBLE
High probability	Pre-anchor yips / target panic	The problem appears before anchor, in a specific, repeated way that is not proportional to distance. Every arrow that slips away reinforces the loop.
Medium-high probability	Task-specific dystonic component	The tactile/mechanical change from the finger loop alters the task and allows anchoring. Task-specific dystonias emerge in highly learned, repetitive movements.
Medium-high probability	Hand-forearm overload	40 lb and 6-second holds at age 80 place a high load on the finger flexors and the gripping system, especially when repeated many times.

OPERATIONAL RECOMMENDATIONS

- Temporary stop to the 40 lb bow and to any long isometric hold at anchor.
- No sessions of 100–200 shots: today they consolidate the problem.
- Targeted medical / neurological / physiatric assessment of the hand, forearm, cervical spine, and general condition.
- Technical return only with very low load, a modified task, no competitive target, and controlled progression.

02 ASSESSMENT

A normal technical slump produces variable errors: one day the anchor is high, one day the shoulder rises, one day the release is dirty. Here, instead, the behaviour is more peculiar: the string slips before anchor, and it does so repetitively. The repetitiveness of the breaking point matters more than the quality of the group at 18 m.

The technique may still be present in memory but not accessible in the real task. This is typical of performance blocks: the athlete knows what he wants to do, often describes it well too, but when he enters the movement the motor system takes an unwanted automatic exit. It is a problem of control, prediction, threat, and automation.

The fact that it happens even at 5 m greatly reduces the probability that it is a problem of aiming, distance, or fear of the far target. The fact that it improves with the finger loop reduces the probability that it is merely back weakness or an inability to draw. The fact that it appeared after intense isometric work at anchor makes negative motor learning plausible: anchor has become a position associated with fatigue, waiting, effort, and forced control.

03 FUNCTIONAL INTERPRETATION

3.1 Pre-anchor yips and a possible dystonic component

The core of the problem could be a severe form of archer's yips in the pre-anchor phase, with a possible task-specific dystonic component. The central nervous system seems to have associated a specific phase of the movement, the approach to anchor with tension on the fingers, with a premature exit. The slipping of the string is not a conscious decision: it is a motor response that occurs before C. can correct it with the mind.

The literature on task-specific dystonias describes disorders that emerge during highly trained, repetitive, and fine movements, such as writing, playing an instrument, or performing precision sporting movements. In sport-specific disorders, the term yips is often used to describe the involuntary loss of motor control in automated technical movements. In Kyudo, a form of Japanese archery, disorders compatible with the yips have been described, including premature releases and specific difficulties in the shooting phase.

3.2 Overload, stress, and medical components to rule out

This psychomotor core must not be isolated from the rest of the person. C. is 80 years old and is going through significant psychophysical stress. In this context, a new loss of hand control can be aggravated or mimicked by neuropathy, cervical radiculopathy, carpal tunnel syndrome, ulnar nerve involvement, tremor, medications, metabolic deficits, tendinopathy, or a general reduction in grip strength.

The most correct functional formulation therefore seems to be this: C. presents a task-specific loss of finger-string control in the pre-anchor phase, compatible with target panic / pre-anchor yips and a possible dystonic component, probably favoured by the 40 lb isometric load and amplified by systemic stress. The presence of medical factors, however, requires clinical screening before treating it as a purely technical problem.

04 INTERPRETING THE FINGER LOOP

The finger loop is a fascinating detail: it is the most informative natural test available. When C. threads his fingers into the loop, the task changes. The string no longer depends on the same quality of the finger-string hook, the chance of slipping decreases, and the tactile/proprioceptive feedback changes. If under this condition he reaches anchor, the global draw is probably possible.

The finger loop matters because it acts on two levels of the same problem. On the mechanical level it keeps the string from leaving the fingers easily, and thus bypasses the fragile point of the movement. On the

neurosensory level it alters cutaneous and proprioceptive feedback, giving the nervous system different, less threatening information. In dystonic or task-specific disorders, small tactile or postural changes can temporarily reduce the symptom.

It may indicate a dystonic component, but it may also indicate that the finger grip is painful, fatigued, insecure, or neurologically less precise.

OBSERVATION	STRONG INTERPRETATION	ALTERNATIVE INTERPRETATION
Reaches anchor with the finger loop	The shoulder–back system can complete the draw; the fragile point is the finger-string hook.	The finger loop reduces fear, pain, or uncertainty, not necessarily dystonia.
The string slips before anchor	Pre-anchor yips or a premature motor exit.	Flexor fatigue, pain, neuropathy, tremor, or sensory loss.
It happens even at 5 m	It is not primarily distance or aiming.	It may be anticipation of the movement, independent of the target.
Good group at 18 m but open at 40 m	The few successful arrows may have a dirty release and residual tension.	Angular error amplified by distance.

05 HOW THE ISOMETRIC PROTOCOL MAY HAVE CREATED THE PROBLEM

Isometric work is not wrong. In archery it can make sense to train specific strength, postural holding, and endurance at full draw: indeed, it is essential. The problem is the specific combination: 40 lb, age 80, 6-second holds at anchor, many repetitions, sometimes with a release, sometimes without, sometimes without an arrow but with a let-down of the string. This mixture can become toxic for the motor system because it makes anchor an ambiguous, tiring position, loaded with potentially negative meanings.

01 Peripheral load

The finger flexors and the hand–forearm chain must maintain a stable hook under tension. Six seconds at full load are very different from a fluid transition toward expansion and the release.

02 Task ambiguity

Sometimes he releases, sometimes he closes the shot, sometimes he lets down. The brain does not always receive the same motor ending. For some athletes it is a drill; for an older athlete under stress it can have the opposite effect.

03 Negative association

Anchor = arrival of the hardest part. If the system learns that when anchor arrives, control / suffering increases dramatically, it may begin to exit the movement earlier.

04 Excessive attention

The automated movement is brought under conscious control. In fine skills, thinking too much about the movement can worsen fluidity and timing, especially under pressure.

05 Consolidation of the problem

Every time the string slips before anchor, the system repeats and reinforces the same wrong solution. The problem is being trained.

06 FUNCTIONAL HYPOTHESES

In the case of C., the problem may have a technical-neuromotor core and at the same time be aggravated by peripheral or systemic factors.

POSSIBILITY	SIGNS THAT SUPPORT IT	SIGNS THAT WEAKEN IT	PRACTICAL ACTION
Pre-anchor yips / target panic	Premature string slip, high repetitiveness, appearance within the task, independence from distance.	If the problem appears identically in non-archery movements or in everyday activities.	Deconditioning, load reduction, blank bale, progression with no target and no holds.
Task-specific dystonia	A highly learned task, a specific symptom, possible improvement with a sensory/mechanical change, worsening with stress/fatigue.	Complete absence of an involuntary pattern, immediate improvement with only brief rest, an evident peripheral cause.	Neurological assessment, sensorimotor retraining, avoiding forcing and high volumes.
Flexor overload / tendinopathy	Pain or discomfort in the fingers, palm, forearm. Worsens with load; stiffness, pain on palpation or gripping.	No local pain or fatigue; the same problem at minimal loads.	Draw-weight reduction, submaximal grip work, tendon recovery, possibly a physiatrist/physiotherapist.

STOP SHOOTING AND CONSULT THE APPROPRIATE PROFESSIONAL IF THE FOLLOWING APPEAR

- Sudden weakness of an arm or a hand.
- Sudden loss of sensation, marked tingling, or new asymmetry.
- Chest pain, shortness of breath, fainting, or rapid worsening of the general condition.
- Severe pain in the hand, forearm, shoulder, or cervical spine during or after shooting.
- Progressive worsening not explained by grip strength, coordination, or tremor.

07 WHY THE GROUP MAY LOOK GOOD AT 18 M

AND WORSENS AT 40 M

The group at 18 m can be deceptive. At short distance a release error, a finger micro-pluck, or a variation in pressure on the string can remain relatively contained. At 40 m the same angular error is amplified and the group opens up much more. This does not mean the problem originates at 40 m. It means that at 40 m it is revealed.

Moreover, the few arrows that reach anchor may be forced victories over the reflex. If C. reaches anchor with very high residual tension, finger stiffness, fear that the string will slip, and excessive conscious control, the release will be dirty anyway. So the criterion cannot be merely that he reached anchor. The criterion must be: did he get there fluidly, with a stable hook, without freezing, without clamping, without motor panic, and with a clean release?

08 WHAT NOT TO DO

TEMPORARY PROHIBITIONS

- Do not use the 40 lb bow.
- Do no more long isometric holds at anchor: no 6 seconds, no 3 seconds, no holds.
- Do not do sessions of 100–200 shots. It is the fastest way to automate the problem.
- Do not work on the target and the score in the initial phase: the task is to rebuild the motor transition.
- Do not use the finger loop as a crutch without understanding what it is bypassing.

The rule. If an exercise produces a premature string slip for more than 2 repetitions out of 10, that level is too hard.

09 FIELD TEST, FINDING WHERE THE SHOT BREAKS DOWN

Maximum duration	30–40 minutes
Maximum volume	30–45 total draws, not 100–200. If the symptom worsens, end the session early.
Equipment	Resistance band, beginner bow 15–20 lb, possibly a 24–28 lb bow, various tabs, finger loop, side-view camera.
Stop criterion	Pain >3/10, repeated premature string slip, evident frustration, marked tremor, excessive fatigue.

TEST 01 Resistance band, no target

10–12 repetitions with a light resistance band. Objective: check whether the pattern draw → near-anchor → controlled return is available without archery load. If it fails even here, the priority is medical/neuromotor and not technical.

TEST 02 Bow 15–20 lb, blank bale at 2 m, no scoring

10 draws. Assess whether the string stays on the fingers up to the agreed point. If the movement becomes fluid again at low load, draw weight is a major amplifier.

TEST 03 Fingers vs finger loop comparison

5 draws with normal fingers, 5 with the finger loop, 5 with a modified tab or modified grip. If the finger loop clearly improves things, the problem is localised to the finger-string hook/feedback. If a different tab also improves things, the peripheral-sensory component becomes more relevant in the work plan.

TEST 04 Neutral target vs real target

5 draws facing a wall/blank bale, 5 on a large target with no centre, 5 on a normal target face. If it worsens greatly only with a target face/scoring, the classic target-panic component is higher. If it stays the same, the problem is more pre-anchor and task-specific than fear of the centre.

TEST 05 Progressive non-competitive distance

Only when the previous tests are tolerated: 2 m, 5 m, 10 m. Assess the movement, not the score. If the slip already appears at 2 m, there is no point increasing the distance. If it appears only as the demand increases, consider the attentional/perceptual load.

TEST RESULT	INTERPRETATION	DECISION
Fails even with a light resistance band	Possible neuromotor/medical problem or very generalised fear of the movement.	Technical stop, medical priority.
OK with the band, fails with the light bow	The bow/string context activates the problematic pattern.	Retraining with a beginner bow, zero target, low volumes.
OK with the light bow, fails at 40 lb	Load is the primary factor or a very strong amplifier.	Temporarily shelve the 40 lb; rebuild from 20–28 lb.
OK with the finger loop but not with the fingers	The finger-string hook / feedback / mechanical protection is the critical point.	Tab, grip, sensory retraining, possibly the release-aid option.
Worsens only on a real target	Classic target panic, outcome focus, and outcome anxiety.	Psychological/attentional work, blank bale, graded exposure.
Worsens with fatigue during the session	Low neuromuscular tolerance.	Reduce volume, increase rest, submaximal specific strength work.

10 OPERATIONAL PROTOCOL • 12 WEEKS

Each phase must produce easy, clean, non-threatening repetitions. C. must leave the session with the feeling that he can still perform that movement.

PHASE 0 Smart stop and system reset
OBJECTIVE Interrupt the reinforcement of the problematic pattern and reduce threat, fatigue, and frustration.
INDICATIVE DURATION 7–10 days, extendable if the medical picture requires waiting.
LOAD RULES No heavy bow. No isometric holds at anchor. No mass testing.

01 Bow

Stop the 40 lb. If he wants to do something, only technical movements without tension or a very light resistance band, 5–8 minutes, without seeking full anchors.

02 Health

Complete the ongoing medical workup. If there are neurological symptoms, a weak hand, loss of sensation, or physical worsening, absolute priority to the clinical assessment.

03 Diary

Record sleep, stress, hand/forearm/cervical pain, medications, general energy, and fear of the movement from 0 to 10.

PHASE 1 Deconditioning with resistance band and beginner bow
OBJECTIVE Separate the drawing movement from the prediction “I reach anchor and the problem happens”.
INDICATIVE DURATION Weeks 1–2.
LOAD RULES Maximum pain 0–2/10. Maximum failure 1–2 repetitions out of 10. Long rests, no strong local fatigue.

01 Band draw to mid-stroke

C. draws to 50–60% of the movement and returns. No anchor. Fluid movement, not force.

RPE 2–3

DOSE 3 sets of 6–8 reps

02 Band draw to near-anchor • no hold

You come close to the critical zone but return before creating threat. No static pause. Slow breathing.

DOSE 3 sets of 5 reps

03 Imagined release without the string

Simulate the sequence scapula → elbow → line → soft release, without tension. It serves to recover the representation of the movement without the finger trigger.

DOSE 2 sets of 5 reps

04 Beginner bow 15–20 lb · draws without a target

Only if the band is stable: 10–15 total draws, without an arrow only if technically safe and while letting the string down. Better to use an arrow on a blank bale at 2 m as soon as possible, to keep a real purpose and safety.

DOSE 10–15 total draws

PHASE 2 Blank bale and hook rebuilding
OBJECTIVE Rebuild trust in the finger-string hook with low load and a non-threatening release.
INDICATIVE DURATION Weeks 3–4.
LOAD RULES Bow 15–24 lb. Maximum 30 arrows. No scoring. No hold beyond 1 second.

05 Blank bale at 2 m

Large target or a bare target butt. The instruction is not “aim”, but “arrive soft, continue, let it go”.

DOSE 5 blocks of 4 arrows

06 Release in motion

The release must occur during a continuous micro-expansion, not after an isometric hold.

CUE *do not arrive and stop; move through anchor*

DOSE integrated into the previous blocks

07 Conscious but not obsessive hook

Before the draw: check for uniform pressure on the fingers, then stop thinking about the fingers. If C. monitors the fingers throughout the movement, the risk of conscious interference increases.

DOSE pre-shot check, then release the focus

08 Finger loop as a test

One or two mini-sets with the finger loop can serve to remind the system that anchor is reachable. Then return to a task closer to real shooting.

DOSE 1–2 mini-sets per session, no more

PHASE 3 Controlled return to simple aiming
OBJECTIVE Reintroduce the target.
INDICATIVE DURATION Weeks 5–8.
LOAD RULES Bow 20–28 lb. 30–50 arrows. Distance 3–10 m. Technical RPE 3–5. Stop if the symptom exceeds 20% of repetitions.

09 Target face with no centre

Blank sheet, large circle, or a target face with no spot. Seek orientation, not precision.

10 Fixed sequence

Feet → posture → hook → fluid draw → light contact → expansion → release.

11 Target progression

Week 5: blank bale 2–3 m. Week 6: neutral target face 5 m. Week 7: large target face 8–10 m.

Week 8: small centre only if the movement is stable.

12 Video check

One side-view recording every 10 arrows. Watch only two things: does the string slip? Do the fingers stiffen before the critical zone?

PHASE 4 Progressive return to distance and draw-weight decision
OBJECTIVE Take the stable movement from short distance to real distance, without returning to the load that fuelled the problem.
INDICATIVE DURATION Weeks 9–12.
LOAD RULES Distances 10–30 m, then beyond only if stable. Recommended maximum draw weight 25–30/32 lb, barring a specific assessment.

13 Distance progression

10 m for 2 stable sessions → 15 m → 18 m → 25/30 m. Long distances return only when there is no premature string slip at 18 m and the release is clean.

14 Volume progression

Start from 40 arrows. Increase by 10 arrows per week only if there are no relapses.

15 Draw weight

The 40 lb is not forbidden: it is suspended because today it exceeds the system's tolerance. Returning above 30–32 lb should be considered only after weeks that are stable and symptom-free, and it is not mandatory in any case.

SUCCESS CRITERION FOR PHASE 4

Reaching anchor is not enough. He must get there without a string slip, without significant tremor, without increased fear, without stiffness in the release, and without worsening the next day.

11 DAILY HOME PROTOCOL

This block is deliberately short. It must be a practice of recovering fine control, with low load and a feeling of mastery.

EXERCISE	DOSE	OBJECTIVE	NOTES
4–6 breathing	3 minutes	Lower arousal and hypervigilance before the movement.	Inhale for 4 seconds, exhale for 6. Do not force.
Finger / wrist mobility	2 sets of 8–10	Reduce stiffness and increase perception of the hand.	Slow movements, not aggressive stretching.
Soft submaximal grip	5 × 5 seconds at 30–40%	Rebuild trust in the grip without threat.	Soft ball or towel. Stop if there is pain.
Light band, half movement	3 × 6 reps	Make the path fluid without arriving immediately at the critical zone.	RPE 2–3. No hold.
Brief visualisation	5 mental reps	See the movement passing through anchor without a struggle.	Simple image, not obsessive.

12 TECHNICAL INTERVENTIONS FOR FINGER SHOOTING

01 Draw weight

For C., today, 40 lb is probably beyond the system's tolerance. The behaviour proves it: if the movement is no longer available, the load is not training, it is disorganising. The return must start from a load that allows repeatable motor success.

02 Tab and finger protection

A stiffer tab, with a consistent surface and adequate protection, can reduce local pressure, pain, tactile insecurity, and variations in the hook. It is worth trying: a more structured tab, a stable finger spacer, possibly a platform if compatible with style and regulations, and control of the

pressure point on the phalanges. The tab does not cure a dystonia, but it can reduce peripheral sensory discomfort.

03 Finger-string hook

Aim for the most stable hook: distributed pressure, neutral wrist, forearm not contracted. If C. uses a Mediterranean grip, a variation of the hook or of its depth can be tested temporarily; if he uses three-under, check whether the load on the fingers is excessive. A change of grip can work because it changes the proprioceptive pattern: it should be tested and kept only if it reduces the symptom without creating other problems.

04 Anchor and dwell time

For now, anchor must not be a stopping point. It must be a station passed through on the way to expansion and then the release. Target timing: brief contact, continuous expansion, exit. A long hold belongs to the loop that probably fuelled the problem.

05 Clicker or timing signal

If C. uses or can use a clicker / technical signal, it must be managed with enormous care. It can be useful only if positioned so as to favour continuity and a release during expansion, not a static wait. In the initial phase it may be better to work without the clicker, then reintroduce it as confirmation of the movement, not as a trigger.

13 OPERATIONAL RETURN-TO-SHOOTING PATHWAYS

The return to shooting must be decided on the basis of safety, hand health, enjoyment of shooting, response to the tests, and quality of the movement. The priority is to let C. continue to practise archery without turning every session into a battle against his own nervous system. From this, two practical pathways follow, both dignified and technically sound.

PATHWAY 1 Stay in finger shooting, rebuilding everything with low load

This pathway respects the archery identity of C. and makes sense if no major neurological deficits emerge, if the movement becomes fluid again with a low-draw-weight bow, and if C. accepts a phase of slow rebuilding. The non-negotiable condition is to temporarily abandon the idea of being able to handle 40 lb: in this phase, success is not shooting powerfully, it is returning to shooting freely.

PATHWAY 2 Switch to compound or mechanical release

At age 80, with a specific problem in the finger-string hook, a mechanical release can be the most rational choice if the goal is to keep shooting with enjoyment, safety, and precision. It is a modification of the archer–equipment interface that eliminates or reduces the breaking point of the movement.

The main advantage is that the finger-string system is no longer the problem. The draw, the aim, and the management of the release are redistributed onto a more predictable device. The risk is shifting the problem: if the yips component is very strong, it can turn into trigger punching or fear of the release command. So even with a compound / release aid, progressive learning would be needed, not a magic escape.

DECISION LOGIC

First, test a low-load rebuild for 4–6 weeks. If the finger movement clearly improves, continue with Pathway 1. If the symptom remains strong, if neurological/peripheral problems emerge, or if shooting becomes a source of fear and frustration, Pathway 2 should be regarded as an intelligent choice and not as giving up.

14 WEEKLY MONITORING

INDICATOR	SCALE	TARGET
Premature-slip frequency	Number of slips / number of draws	Progressively drop below 10%, then below 5%.
Hand/forearm pain	0–10 during and the day after	Stay 0–2/10. If 3–4/10, reduce load. If >4/10, stop and assess.
Fear of the movement	0–10 before the session	It must not rise week after week.
Perceived hook quality	0–10	Increase stability without gripping harder.
Release quality	1–5	At least 4/5 before increasing distance or draw weight.
General fatigue	Session RPE 1–10	Keep 3–5 in the first weeks.

15 PROGRESSION AND REGRESSION CRITERIA

PROGRESS · WHEN ALL THESE CRITERIA ARE PRESENT

- At least two consecutive sessions with premature slip below 10%.
- Hand / forearm / cervical pain 0–2/10 during and the day after.
- Fear of the movement no higher than 4/10 and decreasing.
- Fluid release on video, with no evident finger stiffening before anchor.
- C. finishes the session with a feeling of control.

REGRESS · WHEN ANY OF THESE SIGNS APPEARS

- Premature slip above 20% in the session.
- Two consecutive slips after increasing distance or draw weight.
- Increased pain the day after.
- A clear increase in anxiety, frustration, or avoidance.
- A tendency to want to try again compulsively.

C. must not be pushed to overcome the block: he must be protected from repeating it. Every premature string slip is a repetition of the problem. Every easy, light, successful, and non-threatening repetition is a repetition of the solution.

The picture seems recoverable, or at least manageable. What is needed is a reduction in load, rebuilding of the movement, monitoring, and a willingness to change equipment if the finger-string system is no longer the best way to keep shooting.



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