



# ATHLETE A: THE READINESS STORY

COMPLETED FICTIONAL EXAMPLE



## ATHLETE A

A practical example of how workload, response, confidence, role, and shared judgment can be reviewed after full-practice clearance.

CURRENT CLINICAL QUESTION

Can Athlete A tolerate one controlled game-density shift block while game clearance remains a separate decision?

ENTRY: FULL PRACTICE / CLEARED

GAMES: WITHHELD

### CASE SNAPSHOT

#### ENTRY POINT

**Full practice**

Late-stage; medically cleared

#### ROLE

**Forward**

Regular shift responsibilities

#### CONTACT

**Practice allowed**

Tracked separately

#### COMPETITION

**Withheld**

No automatic clearance

#### ILLUSTRATIVE VALUES - NOT CLINICAL TARGETS

All values in this document are fictional and illustrative. They are not targets, norms, safe thresholds, or clearance criteria. The example demonstrates clinical reasoning, not a protocol for a specific athlete.



# ATHLETE PROFILE AND CLINICAL SCOPE

Start with participation status and restrictions. No workload value creates medical, contact, or game clearance.

## ATHLETE AND PARTICIPATION STATUS

### CASE

#### ATHLETE A - FICTIONAL

Demonstration only

### LEVEL

#### Competitive adult skater

Illustrative playing context

### ROLE

#### Forward / regular shift

Compare role-specific demands

### CONTACT

#### Practice contact allowed; games pending

Games remain separate

## HEART-RATE DATA QUALITY

### DEVICE AND PLATFORM

Same chest strap / same team platform

### TRIMP METHOD

Edwards 5-zone example

### VERIFIED HRMAX AND SOURCE

200 bpm / prior max test

### MEDICAL AND CONTACT RESTRICTIONS

No competition. Reassess for new symptoms or response not back to expected baseline.

### INTERPRETATION RULE

Personal reference data are preferred. Team or position norms are context only. Keep the HR device, HRmax, zones, platform, and TRIMP method consistent.



# PERSONAL HEALTHY REFERENCE

Compare the athlete with their own healthy hockey demands using the same reliable device and calculation method.

## REFERENCE EXPOSURES

| Reference exposure          | Samples | Ice duration | sRPE load | TRIMP  | Min >85% | Context, role, and source                            |
|-----------------------------|---------|--------------|-----------|--------|----------|------------------------------------------------------|
| Normal full practice        | 6       | 65 min       | 390 AU    | 150 AU | 12 min   | Healthy full practice; regular role; same HR system. |
| Game simulation / scrimmage | 3       | 70 min       | 490 AU    | 185 AU | 18 min   | Healthy scrimmage reference; same HR system.         |
| Competition                 | 5       | 85 min       | 680 AU    | 235 AU | 26 min   | Healthy game reference; regular role; same system.   |
| Competitive week            | 4       | 230 min      | 1600 AU   | 520 AU | 58 min   | Healthy 4-week mean; descriptive, not a target.      |

### DATA-QUALITY RULE

Personal reference is the preferred comparison. These values describe prior healthy exposure; they are not pass-fail targets. Never use age-predicted HRmax as a clearance standard.



# WEEK 4: ESTABLISH THE PATTERN

Three full practices establish a repeatable response pattern before additional role-specific demand.

SESSIONS

3

full-practice exposures

ICE

185 min

weekly ice duration

sRPE

1110 AU

duration x session RPE

TRIMP

420 AU

>85%: 35 min

## COMPLETED HOCKEY EXPOSURES

| Date    | Exposure      | Phase         | Ice    | RPE | sRPE | TRIMP | >85%   | Symptoms during / 24h | Conf. | Decision   | Response and hockey context       |
|---------|---------------|---------------|--------|-----|------|-------|--------|-----------------------|-------|------------|-----------------------------------|
| W4 / D1 | Full practice | Full practice | 60 min | 6   | 360  | 125   | 8 min  | 1 / 1                 | 6     | Repeat     | Regular role; expected response   |
| W4 / D3 | Practice + ST | Full practice | 60 min | 6   | 360  | 135   | 11 min | 1 / 1                 | 7     | Progress 1 | Special teams; recovery expected  |
| W4 / D5 | Full practice | Full practice | 65 min | 6   | 390  | 160   | 16 min | 2 / 2                 | 7     | Repeat     | Role block added; response stable |

INTERPRET THE PATTERN, NOT ONE NUMBER

Week 4 establishes repeatable full-practice tolerance before an additional role-specific demand is introduced.



# WEEK 5: RESPOND TO THE ATHLETE

A higher 24-hour response changes the next exposure. The plan responds to the athlete, not the number alone.

SESSIONS

3

full-practice exposures

ICE

190 min

weekly ice duration

sRPE

1270 AU

duration x session RPE

TRIMP

455 AU

>85%: 41 min

## COMPLETED HOCKEY EXPOSURES

| Date    | Exposure      | Phase         | Ice    | RPE | sRPE | TRIMP | >85%   | Symptoms during / 24h | Conf. | Decision   | Response and hockey context             |
|---------|---------------|---------------|--------|-----|------|-------|--------|-----------------------|-------|------------|-----------------------------------------|
| W5 / D1 | Full practice | Full practice | 60 min | 6   | 360  | 135   | 10 min | 1 / 1                 | 7     | Progress 1 | Regular role; expected recovery         |
| W5 / D3 | Practice + ST | Full practice | 65 min | 7   | 455  | 150   | 14 min | 1 / 3                 | 8     | Modify     | Next-day stiffness; extra block removed |
| W5 / D5 | Full practice | Full practice | 65 min | 7   | 455  | 170   | 17 min | 1 / 1                 | 8     | Repeat     | Back to baseline; games withheld        |

CLINICAL RESPONSE CHANGED THE PLAN

The W5 / D3 response led to one modified exposure. The next session returned to the expected baseline, but unrestricted competition remained withheld.



# TRIMP: WHAT IT MEANS

Use heart-rate-derived load as context beside duration, session RPE, symptoms, recovery, role, and contact.

## TRIMP = TRAINING IMPULSE

A heart-rate-derived estimate of internal cardiovascular load. More time and/or more time at higher heart rate produces a larger score in arbitrary units (AU).

### A FAMILY OF METHODS

Platforms may calculate TRIMP differently. Choose one method and keep the device, HRmax, zones, and platform consistent. Do not mix values across methods.

## WHAT IT CAN AND CANNOT ESTABLISH

### USEFUL FOR

Describing cardiovascular training impulse; comparing similar sessions or weeks; and adding context to duration and session RPE.

### NOT A CLEARANCE RULE

TRIMP does not establish tissue readiness, maximal-speed exposure, contact tolerance, technical quality, psychological readiness, injury risk, or game clearance.

### COMPARISON RULE

Compare Athlete A only with values calculated by the same method. Keep the raw duration, high-HR time, symptoms, recovery, confidence, role, and contact visible beside the score.



# TRIMP: WORKED EXAMPLE

Generic heart-rate monitor data. The calculation is illustrative, not a target or clearance threshold.

## EDWARDS-STYLE FIVE-ZONE CALCULATION

| HR zone         | Monitor time | Weight | Zone points |
|-----------------|--------------|--------|-------------|
| Below 50% HRmax | 5 min        | x 0    | 0 AU        |
| 50-59% HRmax    | 10 min       | x 1    | 10 AU       |
| 60-69% HRmax    | 15 min       | x 2    | 30 AU       |
| 70-79% HRmax    | 15 min       | x 3    | 45 AU       |
| 80-89% HRmax    | 10 min       | x 4    | 40 AU       |
| 90-100% HRmax   | 5 min        | x 5    | 25 AU       |

ZONE-WEIGHTED TRIMP = 10 + 30 + 45 + 40 + 25 = 150 AU

### GENERIC MONITOR EXPORT

Session: 60 min  
Average HR: 153 bpm | Peak HR: 193 bpm  
Verified HRmax: 200 bpm | Time above 85% HRmax: 12 min  
TRIMP/min: 150 AU / 60 min = 2.50 AU/min

### HOW TO READ 150 AU

The score describes cardiovascular cost under this zone-weighted method. It is not 150 minutes, calories, an injury-risk score, or a clearance score.

### GENERIC WEEKLY CALCULATION - DESCRIPTIVE, NOT PREDICTIVE

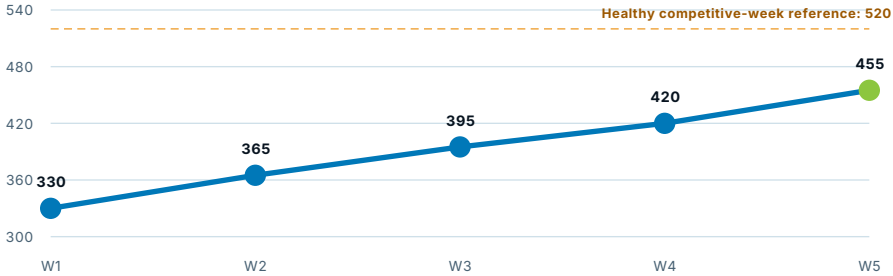
Prior four: 430 + 470 + 450 + 490 = 1,840 AU / 4 = 460 AU mean. Current seven days: 500 / 460 = 1.09 recent:prior. Keep the raw 500 AU visible.



# RECENT-TO-PRIOR CONTEXT

The ratio summarizes training history. Review the raw values first and never label a ratio safe, unsafe, or game-ready.

ATHLETE A WEEKLY TRIMP



CURRENT WEEK CALCULATION

455 AU

Current 7-day TRIMP

377.5 AU

Mean of Weeks 1-4

1.21 RECENT:PRIOR

Context only - not a clearance classification.

| Wk | Sess | Ice | sRPE | TRIMP | >85% | Prior mean | Ratio | Status       | Clinical response and hockey context                   |
|----|------|-----|------|-------|------|------------|-------|--------------|--------------------------------------------------------|
| 1  | 3    | 150 | 780  | 330   | 20   |            |       | Prior data   | Individual + team integration; expected recovery.      |
| 2  | 3    | 165 | 900  | 365   | 26   |            |       | Prior data   | Team drills; role still modified.                      |
| 3  | 3    | 175 | 990  | 395   | 31   |            |       | Prior data   | Full-practice entry; expected recovery.                |
| 4  | 3    | 185 | 1110 | 420   | 35   |            |       | Prior data   | Three full practices; role exposure progressed.        |
| 5  | 3    | 190 | 1270 | 455   | 41   | 377.5      | 1.21  | Current week | One modified exposure; raw data and response reviewed. |

DO NOT USE AS

an injury predictor, a universal 0.8-1.3 safe zone, a progression target, or a clearance threshold. Late-stage rehabilitation can depress the denominator and create an artificial spike.



# THE SHARED PROGRESSION DECISION

Monitoring supports the conversation. Health, exposure quality, recovery, confidence, role, contact, and schedule demands still govern progression.

## FOUR DECISION QUESTIONS

| Decision question                                                                       | Response         | Evidence and context                                                                        |
|-----------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------|
| Clinical response returned to expected baseline?                                        | Yes              | After the modified D3 dose, the athlete returned to the expected baseline before D5.        |
| Target skating, role, contact, and schedule exposure tolerated with acceptable quality? | Yes - modified   | D5 practice role was tolerated; unrestricted game density has not been tested.              |
| Athlete confidence supports the next exposure?                                          | Yes for practice | Confidence was 8/10 for practice, but unrestricted competition remains a separate decision. |
| Clinician, athlete, and coach agree on the next step?                                   | Yes              | Clinician, athlete, and coach agree to repeat full practice and change one demand only.     |

## DECISION AND NEXT EXPOSURE

OUTCOME

Repeat + progress one demand

PLANNED DATE

Next planned practice

CONTACT STATUS

Practice contact allowed; game pending

### NEXT EXPOSURE PLAN

Repeat full practice. If the same-day and 24-hour response remain expected, add one controlled game-density shift block. Do not add a second major demand.

### RESTRICTIONS AND COMMUNICATION

Retain the no-game restriction. Stop and assess for new swelling, instability, neurologic or cardiopulmonary symptoms, systemic illness, or a response that does not return to expected baseline. Clinician updates the coach after the 24-hour response.



# HOW CLINICIANS SHOULD APPLY IT

Use after medical clearance for full practice while unrestricted competition remains pending. Contact, game clearance, and return to performance remain separate.

## FIVE-STEP WORKFLOW

| 1. CONFIRM SCOPE                 | 2. BUILD REFERENCE           | 3. LOG EXPOSURE                | 4. DESCRIBE GAP              | 5. SHARE DECISION                |
|----------------------------------|------------------------------|--------------------------------|------------------------------|----------------------------------|
| Clearance, contact, restrictions | Healthy practice, game, week | Dose, response, HR if reliable | Athlete's own hockey demands | Progress, repeat, modify, assess |

## TWO-LEVEL MONITORING MODEL

### LEVEL 1 - ACCESSIBLE PATHWAY

Use every session: ice duration and session RPE; session type, role, and hockey demand; symptoms before, during, and 24 hours later; confidence, contact status, and shared decision.

### LEVEL 2 - HR-INFORMED PATHWAY

Add when reliable and comparable: average and peak HR; minutes above 85% of verified HRmax; zone-weighted or platform TRIMP and TRIMP/min; capture quality and same-method confirmation.

### WHAT HR CANNOT ESTABLISH

Tissue readiness, maximal-speed exposure, acceleration or contact dose, technical and tactical quality, psychological readiness, or game clearance.

### STOP AND ASSESS

New swelling, instability, neurologic or cardiopulmonary symptoms, systemic illness, or a response that does not return to expected baseline.

**Agreement never overrides a contraindication, restriction, or need for individualized clinical judgment.**

Fictional participants: Clinician A - fictional | Athlete A - fictional | Coach A - fictional