

LEADER'S TOOL: USING THE RISK MATRIX TO DETERMINE A UNIT'S HEALTH AND FITNESS RISK

Commanders are required to maximize combat readiness of their units^a through efforts to maintain or improve a unit's physical and mental fitness, such as injury prevention, stress management, nutrition, and weight control. Though it is not a replacement for Army regulation or doctrine, this tool can help commanders identify weaknesses in programs and monitor improvements to unit health and fitness status.

The Unit Health and Fitness Risk Matrix (Table 1) is adapted from the military's Risk Management (RM) matrix ([ATP 5-19](#)) to help leaders characterize the **RISK** that their units' health and fitness may pose to mission success.

The **SEVERITY** of a unit's health and fitness status is reflected by individuals who are medically non-deployable or otherwise have conditions preventing them from successfully conducting military tasks.

The **PROBABILITY** that a unit's health and fitness status will continue to be a mission risk is reflected by the quality and comprehensiveness of the unit's Holistic Health and Fitness (H2F) program ([Field Manual \(FM\) 7-22, Holistic Health and Fitness](#)).

The following apply to the adapted risk matrix in Table 1:

SEVERITY is suggested as the total % of unit personnel in one or more of the metric categories below (only count individuals once). Unit leaders are responsible for tracking these key metrics^{b-d}:

- % personnel in unit on medical profile (often for overuse injury; could be acute injury, behavioral health, or other)^b
- % personnel flagged for failing Height-Weight standards and enrolled in the Army Weight Control Program (AWCP)^c
- % personnel failing to meet physical fitness test standards^d (can just use the 2-mile run with Pass/Fail as a metric)

PROBABILITY is suggested to be based on a "Grade" of the unit's H2F program. Suggested grading criteria and scoring details appear in Table 2 (next page).

^aThe unit can be any size; typically, this tool would be applied at the Company or lower level.

^bMedical profile data can be found through the E-profile system; leaders of Company and lower-level units should track unit profiles ([FM 7-22](#)).

^cBoth current Height-Weight (Body fat (BF)% or tape-test results and assignment to the AWCP (per [Army Regulation \(AR\) 600-9](#)).

^dFitness test scores are required to be documented in the Defense Training Management System (DTMS) (per [AR 350-1](#)).

Table 1. Unit Health and Fitness Risk Matrix

SEVERITY (ATP 5-19) In terms of Unit Health & Fitness Status			PROBABILITY				
			Frequent	Likely	Occasional	Seldom	Unlikely
			H2F Program Grade F*	H2F Program Grade D*	H2F Program Grade C*	H2F Program Grade B*	H2F Program Grade A*
I	Catastrophic	> 30% of unit not of optimal health status	Extremely High Risk	Extremely High Risk	High Risk	High Risk	Medium Risk
II	Critical	> 20-30% of unit not of optimal health status	Extremely High Risk	High Risk	High Risk	Medium Risk	Low Risk
III	Moderate	10-20% of unit not of optimal health status	High Risk	Medium Risk	Medium Risk	Low Risk	Low Risk
IV	Negligible	< 10% of unit not of optimal health status	Medium Risk	Low Risk	Low Risk	Low Risk	Low Risk

Suggested points (pts): Grade A = 96–100 Grade B = 89–95; Grade C = 79–88, Grade D = 70–78; Grade F = <70 pts

“Grade A” means 1) the unit has a documented, unit-specific PRT plan for which the majority of criteria are met, and 2) the program is executed with minimal to no deviance from the plan. Apply a lower grade if any aspect of execution is inadequate.

Table 2. Holistic Health and Fitness Program Grading Tool*

I. General Program Plan Grading Criteria		Points
1. There is a current (e.g., < 12 months) documented unit H2F program that is <i>specific to the unit's mission</i> .		0–10
2. The unit H2F plan is approved by an appropriate medical authority. [†]		0–5
3. Soldiers' height-weight, body fat %, and assignment to/removal from the Army Body Composition Program are routinely updated in DTMS.		0–5
4. Soldiers' Fitness test scores (e.g., Army Combat Fitness Test) are routinely documented in DTMS (minimum annual updates).		0–5
5. The unit H2F plan includes requirements to ensure— a. The commander is routinely aware of Soldiers' medical profiles and leading causes for profiles (injury, behavioral health). [2 pts] b. Unit leaders prioritize reduction of common injuries (e.g., musculoskeletal overuse injuries) and behavioral health issues. [2 pts] c. Leaders do NOT use physical exercises or training (e.g., running, push-ups, long marches) as “disciplinary actions.” [2 pts] d. The use of unit and local installation health resources (e.g., master fitness trainers, registered dieticians, Army Wellness Centers, behavioral and social health counselling.) [2 pts]		0–8
6. The unit H2F plan includes a <u>remedial PT program</u> to ensure— a. The following individuals are designated in DTMS and monitored: i. Overweight Soldiers flagged IAW AR 600-9 [2 pts] ii. Soldiers failing their physical fitness test or 2-mile run) [2 pts] iii. Soldiers on a Temporary MSK Medical Profile [2 pts] iv. Pregnant/postpartum Soldiers [2 pts] b. Personnel participating in the remedial PT program are monitored and provided guidance approved by an appropriate medical authority to reduce injury risk. [2 pts]		0–10
7. The unit PRT plan includes a process to ensure Soldiers on Temporary Profiles do not Return to Duty (RTD) too soon or without adequate rehabilitation, such as without approval by the medical authority (e.g., Do not RTD based solely on their Profile duration). [†]		0–4
II. Key Elements Addressed by the Plan		Points
1. Physical Training Procedures and Activities: a. Activities cover all key fitness components (cardio, muscle endurance and strength, flexibility, balance). [‡] b. Activities ensure safety of ACFT and weight-training with proper available equipment, certified trainers, oversight, alternatives. [‡] c. Procedures minimize specific activity-related injuries by ensuring: (1) proper technique (e.g., weight lifting to avoid shoulder and back injuries: dead lift , squat , bench press); (2) use of effective interventions (e.g., combat training (mouthguards and tooth injury)); (3) education on risk factors and early indicators (e.g. training-related injuries); (4) reduction of knee, lower leg/hip, back injuries by not conducting activities with similar body stress on the same or consecutive days (e.g., running and ruck marching). d. Procedures minimize unique injury risk of specific populations (e.g., trainees , women , high BMI). e. Acclimation procedures especially for trainees/rehabilitated for gradual buildup to physical exertions levels and climate are included.	0–5	
	0–5	
	0–8	
	0–3	
	0–3	
2. Stress Management: Procedures to eliminate stigma, identify early signs of stress or suicide risk, promote healthy behavioral coping; and treatment options for Soldiers with suicide risk, post-traumatic stress, substance misuse, family or financial issues.	0–7	
3. Nutrition and Weight Control: Program ensures Soldiers' weights are monitored IAW standards of AR 600-9. [1 pt] a. Promotes consumption of nutritional calories and addresses those not flagged but exceeding height-weight standards. [2 pts] b. Flagged Soldiers are referred to a registered dietician (Army Wellness Center), and their success is tracked in DTMS. [3 pts]	0–6	
4. Sleep Optimization: Describes specific procedures to maximize sleep quality/time (poor sleep, increased injury, mental resilience). See “ Fighting Fatigue ” article for tips.	0–6	
5. Heat and Cold-weather-related Injury Prevention (IAW TB MED 507 , TB MED 508 , and heat and cold weather factsheet): a. The plan procedures promote and enforce prevention: proper work/rest cycles, awareness of risk factors hydration, clothing. [2 pts] b. The plan describes alternative/modified training activities (e.g., reducing mileage required for ruck marches, such as from 12 miles to 8 miles). [2 pts]	0–4	
6. Tobacco and Substance Abuse: The plan promotes and enforces reduction/elimination of use of tobacco products, e-cigarettes, illegal substances (marijuana, steroids), other unhealthy products or supplements , and abuse of prescription medications.	0–4	
7. Vector, Animal and Other Environmental Hazard Control: Procedures promote and enforce proper hygiene and control of hazards from vectors (insects, rodents, etc.), animals, and other environmental hazards posing risk of injury/disease.	0–2	
TOTAL POINTS		0–100

* This tool was developed based on requirements in [AR 350-1. Army Leader Training](#) ; [FM 7-22 Army Physical Readiness Training](#); [ATP 6-22.5 A Leader's Guide to Soldier Health and Fitness](#); [AR 600-9 Army Body Composition Program](#)

[†] Indicates DCPH-A recommendations that can further reduce injury/health impact.

[‡] Per DoDI 1308.03, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/130803p.pdf?ver=v5atpuD4j_nbloEbongDAA%3d%3d

Additional Resources: APHC products: <https://phc.amedd.army.mil/topics/discond/ptsaip/Pages/Army-Injury-Prevention-Factsheets-and-Training-Products.aspx>

Bullock SH, et al. 2010. “Prevention of Physical Training-Related Injuries: Recommendations for Military & Active Populations based on Expedited Systematic Reviews.” *AJPM* 38(1):156-81.