

# The Use of Psychological Decompression in Military Operational Environments

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**ABSTRACT** This article reviews the use of psychological decompression as applied to troops returning from active service in operational theaters. Definitions of the term are considered and a brief history is given. Current policies and practices are described and the question of mandatory decompression is considered. Finally, the evidence base for the efficacy of decompression is examined and some conclusions are drawn. This article highlights variations in the definition and practice of decompression and its use. Although there is, as yet, no evidence that decompression works, there is also no evidence to the contrary. Given the lack of knowledge as to the balance of risks and benefits of decompression and the absence of any definitive evidence that decompression is associated with improved mental health outcomes or that lack of decompression is associated with the reverse, it is argued that the use of decompression should remain a matter for discretion.

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## INTRODUCTION

Decompression may be defined as either “a release from compression” or “a gradual reduction in pressure.”<sup>1</sup> In recent years, however, the term decompression has been used to describe a psychological concept,<sup>2</sup> which, in military environments, refers to a process that is designed to allow service personnel returning from deployment to adapt to the home environment in a graduated way, with the aim of reducing the potential for maladaptive psychological adjustment.

Major Maree Riley, an officer who has been involved in Australian Defence Force uses of decompression, notes that there is a second definition of so-called “third location” decompression, which refers to 48 to 72 hours in a location that is neither the operational theater nor home, for rest, returning of equipment and reintegration before finally returning to home location (personal communication).

The theory behind decompression derives from the military literature on combat motivation, which holds that the morale and effectiveness of any individual is dependent on his or her membership of a tight-knit social group<sup>3</sup> and hence it is important to ensure that reintegration takes place within this social group just as much as operational exposure/combat.

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## A BRIEF HISTORY OF DECOMPRESSION

The term “decompression” was probably first used in a military context during the Vietnam conflict. Decompression was defined as “time away from a battle, relaxation. Numerous nurses observed that decompression time was needed but often not gotten as soldiers were quickly returned (individually) to the United States after a tour in South East Asia and therefore had minimal time to decompress before returning to their families.”<sup>4</sup>

The first British military use of the term decompression, in a psychological context, was probably after the 1982 Falklands War. Freedman<sup>5</sup> described how the Task Force variously returned from the Falklands by sea or by sea and air.

There was up to 1 week’s difference in journey time between those who sailed and those who sailed only part of the journey, flying the remainder from Ascension. Since then, it has become received wisdom that the former did much better in psychological terms because of the longer time available to debrief each other, unwind and, in other words, to decompress.

However, contrary to newspaper reports, we are unaware of any evidence to substantiate the claim that those who took the more leisurely route home had better outcomes, and strongly doubt that any such data exist. Yet, this claim has entered into legend, and it is from this slender beginning that much of the current debate about decompression originates.

## DECOMPRESSION: CURRENT POLICIES AND PRACTICE

Since the Vietnam War, decompression has become an increasingly accepted part of the U.S. postdeployment personnel policies and there is “general agreement that decompression leave following combat is essential.”<sup>6</sup> A distinguished young American officer who had been involved in the U.S.

invasion of Panama, Operation Just Cause, observed that "Soldiers need time to dream away the emotional storms they experienced." Decompression has an equal role in combat and noncombat missions alike, with vertical cohesion (the bonds within a unit down the chain of command) as opposed to horizontal cohesion (which refers to the bonds formed across similar ranks<sup>7</sup> in units) being affected either positively or negatively by commanders' attitudes toward decompression.<sup>8</sup>

General William L. Nyland, Assistant Commandant of the U.S. Marine Corps, described the U.S. Marines' approach to decompression before the U.S. Senate Armed Services on February 1, 2005.<sup>9</sup> General Nyland told the Committee: "Before departing a combat zone, and immediately upon return to home station, we have instituted a rest and decompression period in which small unit commanders, NCOs [noncommissioned officers], and chaplains, provide the Warrior Transition Brief."

The Canadians use the term "decompression in a third location" to describe the provision of a "safe, clean and restful location that will enable all members to make a clean break from the mission and deployment area and leave for home rested and in good spirits."<sup>10</sup> The objectives of the Canadian Forces Decompression Initiative and Stress Mitigation Programme are "to (provide) service members the opportunity to reflect on and recognize what had been accomplished during their tour, to gain a sense of closure, and to facilitate a smoother reintegration to Canadian society."

This program was implemented when Canadian Forces personnel from 3 Princess Patricia's Canadian Light Infantry (3PPCLI) Battle Group en route back to Canada at the end of a particularly arduous deployment to Afghanistan (Operation Apollo) were airlifted to a "decompression area" in Guam where they spent 2 days in structured activities, educational briefings, peer group interaction, and individual free time.

Initially, decompression was not popular as many soldiers wanted to go straight home. Culturally, Guam was halfway between Afghanistan and Canada and the soldiers found this helpful. Based primarily on satisfaction data from the Operation Apollo experience, Canada decided that the optimal time for decompression should be 5 days. However, other than some data on satisfaction, this was not based on any empirical data.

More recently, Bryan Garber, a Canadian Forces researcher involved in the Canadian Forces' evaluation of decompression (personal communication), has reported a similar use of third-location decompression with nearly 1,500 Canadian Forces troops returning from Afghanistan via Cyprus. The 10-person mental health team (consisting of a psychologist, a mental health nurse, a chaplain, four social workers, two Operational Stress Injury (OSSI) workers, and an epidemiologist) reported delivering over 200 educational sessions and nearly 300 individual sessions (crisis interventions, formal interventions, informal interventions, and OSSI contacts, the latter of which involved nearly 20% of the total contingent).

Garber and colleagues have evaluated the satisfaction of the contingent with this format of 5-day decompression. Overall, the vast majority agreed that some form of decompression was a good idea and this represented an improvement in views about decompression obtained from the contingent before the exercise.

Similarly, the Dutch have also recently reported on an evaluation of the use of 2-day decompressions with Dutch Army units returning from peacekeeping tours in Bosnia.<sup>11</sup> Again, the majority of those surveyed expressed satisfaction with the "adjustment" period although most wanted a degree of freedom of choice as to what to do with their time rather than following a rigidly structured program.

In conclusion, the above examples confirm that although widely used, and frequently described as "essential" or even "mandatory", there remains no standard definition of decompression either between, or even within, nations. None of the examples we quote above provide data of effectiveness but do indicate a measure of satisfaction with the use of postdeployment decompression packages.

## **DECOMPRESSION AND NORMALIZATION: THE BRITISH APPROACH**

The preamble to the current U.K. policy on decompression observes that "there will always be those for whom such (operational) experiences become life-changing and stressful, for whom discussing the incidents among those who witnessed it (sic) and sharing such stories can be of great benefit."<sup>12</sup>

Until recently, the process formerly called decompression (but now referred to as normalization) usually took place over 3 and 4 days in barracks on return to base, with military activities in the morning, recreation in the afternoon, and contact with families in the evening, before the unit goes on full postdeployment leave. There are, however, clearly problems about satisfactorily incorporating attached reservists and augmentees into this process.

The current British concept of decompression, when implemented by brigades, is to have a period of time, usually between 3 and 4 days "out of line" and increasingly in a third location, before recovery from theater to base location.<sup>13</sup> The actual structure of the process is flexible. It is envisioned that during decompression time there will be time for congratulations on what has been achieved, contextualizing past experience, allowing time to begin adjusting to the contrast between operational and domestic conditions, and for the management of expectations concerning return to base. In addition, returning personnel can be briefed on postoperational stress and vulnerable personnel can also be identified, monitored, and, if necessary, referred on as appropriate. Formal events, such as "Drum-Head" ceremonies can also be incorporated to mark the end of the operational tour and to thank all personnel formally for their participation (a "Drum-Head" ceremony is a military religious service where the regimental drums and colors form the altar around which the regiment or battalion gather to mark important occa-

sions). This can easily be missed as planning for troop rotation in and out of theater (termed “roulement” by the British) and all the other ensuing end-of-tour business can deflect attention away from these crucial psychological issues. Leaving theater on a positive note, feeling appreciated and valued, is vital to the psychological health of troops, so they are made to feel appreciated and valued and leave theater on a positive note at the end of their tours.

The key elements of the current U.K. approach are that: decompression is discretionary (although the requirement to consider its use is mandatory); the decision to implement decompression is made at the brigade level; the decompression program consists of a balance of carefully considered and properly orchestrated activities and leisure-time; the program is constructed and managed by personnel at a higher level who have experienced the same operational environment; and participation in the decompression process is universal (involving all ranks and all personnel regardless of whether they are regular or reservist).

An example of an apparently successful use of decompression by British Forces was the use of “third-location” decompression with U.K.’s 3 Para Battle Group, returning from service in Afghanistan via Cyprus (R. Eldridge, personal communication). This tour had been extremely arduous—with much of the time spent in forward locations—and involved serious injury, loss of life, and regular contacts with the Taliban, insurgents, and anti-coalition militia.

During decompression, all personnel were, as far as possible, kept together. This specifically included the individual reinforcements (that were present at this time) and the reservist personnel. All the combat troops from the 3,000-strong Battle Group were flown from Kabul (Afghanistan) to Royal Air Force Akrotiri (a military base in Cyprus) in groups varying between 40 and 135. Feedback gained from the 1,527 personnel who undertook the decompression was evaluated.

The comments from the vast majority of those who undertook the package were extremely positive. Comments such as “Excellent package, exactly what the boys needed” and “I believe it should be compulsory for all tours and far better than anyone had expected” were common. The above appears to be an example of how a decompression, which was specifically targeted at those who have been in direct combat, can be implemented effectively and appears, from the qualitative feedback from the troops and commanders, to have achieved its aim.

However, less positive comments on normalization were obtained during an in-depth study of U.K. regular British Army service personnel deployed to Iraq in 2004/2005.<sup>14</sup> In that sample, the majority of regular soldiers considered normalization (then termed decompression) to be a waste of their time. Despite approximately half of the study sample believing that the idea of decompression helped some soldiers readjust postdeployment, the majority believed that they themselves did not need or benefit from it (many of the specialist individual reinforcements, such as medical personnel, undertake 3- to 4-month tours so they may not have been

captured at the normalization phase. The following statement was made by a soldier who had experienced 3 weeks of normalization: “I think we should come back and go straight on leave. Fatigues and stuff like that, that’s all there is to do, fatigues . . . like today, I’ve got to move metal around or something. If you have fatigues then you do it for a couple of hours or however long it takes. If not, that’s you done for the rest of the day . . . [so] you go to town and drink.”

### MANDATORY DECOMPRESSION?

Frequent claims have been made for the effectiveness of decompression, although this is without much in the way of supporting evidence to date. But should postdeployment decompression now become mandatory? Both Australia and the United Kingdom have, perhaps, made it clear that this would be a bridge too far at this stage.

The Australian Government recently declined the opportunity to implement mandatory decompression, arguing that: “ADF [Australian Defence Force] personnel returning from operational deployments are best managed with a degree of flexibility that allows commanders to make decisions based on the best interests of their subordinates. The nature of the deployment should drive the need for any period of decompression.”

Similarly, current U.K. policy on the use of decompression acknowledges the fact that “mandated decompression could be unhelpful if personnel are not allowed to return immediately to their families (and) mandating (the use of decompression) could therefore be detrimental to morale.”

### DECOMPRESSION: THE EVIDENCE

Despite the fact that decompression is increasingly seen as a “good thing,” there are, in fact, surprisingly little data to confirm or refute this impression. The King’s College Cohort Study of Physical and Mental Health of the U.K. Armed Forces<sup>15</sup> has some limited unpublished evidence concerning decompression. The data were gathered from a sample of 4,023 regular U.K. Armed Forces personnel deployed to Iraq on Operation TELIC 1 (the initial war-fighting phase). A total of 39% ( $n = 1,586$ ) of those surveyed were found to have been sent straight on leave on their return from operations, 29% ( $n = 1186$ ) stayed on base for less than 1 week before going on leave, 21% ( $n = 837$ ) stayed on base for between 1 and 2 weeks, and 11% ( $n = 432$ ) were kept on base for 2 weeks or longer before being allowed on leave (Table I).

Statistically significant differences were observed by rank ( $p = 0.004$ ), service ( $p < 0.0001$ ), age ( $p < 0.0001$ ), and gender ( $p = 0.03$ ). Officers were more likely than ranks to go straight on leave (45% vs. 39%), the Naval Service (61%) and the Royal Air Force (76%) more likely to go straight on leave than the British Army (22%), older people (45+ years) being more likely to go straight on leave than those <25 years of age (52% vs. 35%), and women being more likely to go straight on leave than men (47% vs. 39%).

So there was considerable variation in the time allocated for decompression activities. But this natural variation was not

**TABLE I.** Time Spent in Base Location by Health Outcomes

Health Outcomes	Time Spent <i>n</i> (%)			
	Straight on Leave	1 Week or Less	1–2 Weeks	2+ Weeks
Common mental health disorder (as measured by GHQ)				
Control	1,272 (39.6)	928 (28.9)	671 (20.9)	339 (10.6)
Case	300 (39.1)	221 (28.8)	158 (20.6)	88 (11.5)
PTSD symptoms (as measured by PCL)				
Control	1,517 (39.6)	1,103 (28.8)	792 (20.7)	416 (10.9)
Case	49 (33.3)	47 (32.0)	39 (26.5)	12 (8.2)
Severe alcohol consumption				
Control	1,374 (40.6)	971 (28.7)	680 (20.1)	356 (10.5)
Case	200 (33.3)	184 (30.7)	148 (24.7)	68 (11.3)
Chronic fatigue				
Control	1,107 (41.1)	768 (28.5)	536 (19.9)	286 (10.6)
Case	464 (36.4)	376 (29.5)	293 (23.0)	141 (11.1)
Multiple symptom				
Control	1,419 (39.9)	1,041 (29.2)	741 (20.8)	360 (10.1)
Case	167 (36.2)	127 (27.5)	96 (20.8)	72 (15.6)
Poor or fair general health				
Control	1,410 (39.5)	1,046 (29.3)	730 (20.5)	380 (10.7)
Case	170 (39.4)	111 (25.7)	103 (23.8)	48 (11.1)

GHQ, General Health Questionnaire; PTSD, post-traumatic stress disorder; PCL, PTSD Checklist.

associated with any differences in any of the health outcomes examined following appropriate adjustment for confounding variables. There were, however, two exceptions. If personnel spent >2 weeks in a base location after deployment, they were found to be 1.5 times more likely to develop multiple symptoms; if personnel spent 1 week or less in a base location postdeployment, they were less likely to report their health as being poor or fair (Table II). It is important to emphasize these are post hoc analyses and need to be interpreted with caution.

These data do not provide a definitive test of the effectiveness or otherwise of decompression. On the other hand,

the lack of any positive association between decompression and mental health suggests that such an association, if present, is not likely to be substantial and, furthermore, efforts should be made to keep decompression short and to avoid long periods on base following return from operations.

**CONCLUSIONS**

Although there is, as yet, no common definition, there are some essential elements to what nations call “decompression.” The purpose of postoperational decompression is for units to “unwind,” i.e., it is a process by which personnel who

**TABLE II.** Associations with Health Outcomes, Odds Ratios (OR), and 95% Confidence Interval (CI)

Health Outcomes	Time Spent			
	Straight on Leave	1 Week or Less	1–2 Weeks	2+ Weeks
Common mental health disorder (as measured by GHQ)				
OR (95% CI)	1.0	1.01 (0.83–1.23)	1.00 (0.81–1.24)	1.10 (0.84–1.44)
Adjusted <sup>a</sup> OR (95% CI)	1.0	0.90 (0.73–1.11)	0.87 (0.68–1.10)	1.01 (0.77–1.33)
PTSD symptoms (as measured by PCL)				
OR (95% CI)	1.0	1.32 (0.88–1.98)	1.52 (0.99–2.34)	0.89 (0.47–2.69)
Adjusted <sup>a</sup> OR (95% CI)	1.0	0.88 (0.57–1.36)	0.91 (0.57–1.46)	0.62 (0.32–1.21)
Severe alcohol consumption				
OR (95% CI)	1.0	1.30 (1.05–1.62)	1.50 (1.19–1.88)	1.31 (0.97–1.77)
Adjusted <sup>a</sup> OR (95% CI)	1.0	1.13 (0.89–1.44)	1.20 (0.93–1.56)	1.17 (0.85–1.61)
Chronic fatigue				
OR (95% CI)	1.0	1.17 (0.99–1.38)	1.30 (1.09–1.56)	1.18 (0.94–1.48)
Adjusted <sup>a</sup> OR (95% CI)	1.0	0.99 (0.82–1.19)	1.06 (0.87–1.29)	1.03 (0.81–1.31)
Multiple symptom				
OR (95% CI)	1.0	1.04 (0.81–1.32)	1.10 (0.84–1.44)	1.70 (1.26–2.29)
Adjusted <sup>a</sup> OR (95% CI)	1.0	0.84 (0.65–1.10)	0.86 (0.64–1.15)	1.45 (1.06–1.99)
Poor or fair general health				
OR (95% CI)	1.0	0.88 (0.68–1.13)	1.17 (0.90–1.52)	1.05 (0.75–1.47)
Adjusted <sup>a</sup> OR (95% CI)	1.0	0.75 (0.57–0.99)	0.97 (0.73–1.30)	0.89 (0.62–1.27)

GHQ, General Health Questionnaire; PTSD, post-traumatic stress disorder; PCL, PTSD Checklist.

<sup>a</sup> Adjusted for rank, age, gender, and service.

deploy together unwind together. Decompression programs need to be structured while at the same time facilitating informal contact between personnel and decompression needs to be time limited. Furthermore, if decompression is thought to be required, then it should be carried out in a safe location, ideally with better living accommodation and amenities than the personnel have had in-theater (contrary to popular belief, the living accommodation on many mature operations is now of a high standard and, especially as operations draw down and the infrastructure remains, it is not uncommon for junior personnel to remark that the accommodation, food, and gym facilities are better than in their base locations. This may present a problem for the location of the decompression). This could be accomplished by spending a short period at a staging post on the way home (“third location”) or a possibly longer period back in a base location. This latter option can, however, also lead to potential division between units and attached personnel (individual reinforcements, reservists).

It is also unclear whether, and how, decompression arrangements should perhaps be linked to the nature and intensity of the operations that returning troops have experienced, with formal decompression perhaps being reserved only for troops who have experienced intense fighting or who are likely to have little opportunity to mix informally with peers on their return to their base locations.

Decompression can only serve a useful function if it is targeted appropriately, included in the tour length, funded appropriately, and included with other required/essential administrative or logistic tasks. Just like the principles of proximity, immediacy, and expectancy in the management of combat stress casualties,<sup>16</sup> the only definitive proof of the effectiveness, or lack thereof, of decompression can come from a randomized control trial. Unfortunately, such a trial is unlikely to be performed. In the context of continuing uncertainty, the best we can say is that decompression appears to be good management. As long as the environment is appropriately controlled and better than that just vacated and the procedure fits naturally into the life of the unit, it should do no harm. On the other hand, if unstructured and imposed without purpose, it can at best convey no benefit, and at worst, affect morale and satisfaction.

In the absence of definitive evidence, commanders might also like to take advice from military psychological support professionals (military psychologists, psychiatrists, or mental health nurses) as to whether or not to decompress and what form, if any, the decompression should take.

Given the lack of knowledge as to the balance of risks and benefits, and the absence of any definitive evidence that decompression is associated with improved mental health outcomes, or

conversely that lack of decompression is associated with the reverse, we believe that the use of decompression should remain a matter for discretion. Where decompression can fit seamlessly with the life of a unit, it may well indeed convey some benefits. Where it is imposed for little purpose, it may do the opposite. Because of the continuing uncertainty, the presence or absence of formal decompression appears, at present, unlikely to amount to a breach of duty of care.

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