

## Dealing with radiologists burnout



Loathing your work, exhaustion, depersonalisation, feeling insignificant, struggling to find the will to get out of bed, addiction and suicide are symptoms of the growing global epidemic: **burnout**. Radiologists specifically experience **high levels** of burnout and this nasty trend is only getting worse. In a much needed effort to help address **burnout in radiologists**, the "*Promoting Health and Wellness for [Radiologists Task Force of the Association of University Radiologists](#)--Radiology Research Alliance*" presents a detailed review of the prevalence, causes and impact burnout presents on faculty and trainees; the review also proposes **strategies for overcoming burnout** and helping to promote overall health and well-being among radiologists.

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The review begins examining the point of origin of the problem by identifying the most prevalent symptoms reported by professionals. According to the report, burnout refers to a constellation of symptoms, including a loss of enthusiasm for work, a high degree of emotional exhaustion, high degree of depersonalization, and a low sense of personal accomplishment. **Physicians in the United States (US) are at a high risk of experiencing burnout symptoms compared to professionals in other fields.**

**More than 50%** of US physicians reported at least one symptom of **burnout**, and this trend continues to increase. Burnout is a global health problem affecting physicians across all medical specialties who work in variable hospital settings and work environments. **Burnout is also prevalent among US physicians-in-training, including medical students, residents, and fellows.** These high levels of professional burnout among healthcare professionals have proven to be detrimental to healthcare quality and safety. Burnout also leads to loss in physician productivity, decrease in professional effort, and may even lead to high physician turnover, early retirement contributing to worsening physician shortages, and increasing health care costs. Finally, burnout has also significantly increased the risk of substance abuse and suicide among physicians.

The Association of University Radiologists Radiology—Research Alliance Task Force on “Promoting Health and Wellness for Radiologists” convened to review the prevalence, causes, and impact of burnout among radiology faculty and trainees. In their report they also discuss strategies for overcoming burnout and promoting overall health and well-being among radiologists at the individual and organizational levels.

### Background: Burnout in radiologists

Radiologists are experiencing high rates of burn out, and this trend has only become worse over the years. In 2014, Shanafelt et al. conducted a survey using the [Maslach Burnout Inventory](#) (MBI) to evaluate the prevalence of burnout among US physicians from various specialties, including radiologists.

The MBI is a well-established and highly validated tool for **measuring burnout on the basis of three key dimensions:**

- 1. Emotional exhaustion**
- 2. Depersonalisation**
- 3. Low personal accomplishment**

Emotional exhaustion or fatigue, states the report, has been described as feeling emotionally over-extended by work, while low personal accomplishment is essentially the feeling of reduced levels of competence and achievement at work.

**Depersonalisation, according to the review, refers to treating patients and/or peers in an unfeeling way.** Of the **6880** survey respondents in that study, 261 (3.8%) were radiologists and **61% of the radiologists reported symptoms of burnout**. Only 48% of radiologists had reported burnout in an earlier nationwide study conducted by the same authors in 2011.

This disturbing trend of worsening burnout among radiologists was also reported in the Medscape Radiology Lifestyle report, in which the prevalence of burnout in practicing radiologists increased from 36% in 2013 to 49% in 2017. In order to address this growing problem, the review states that it is necessary to understand the risk factors that may potentially contribute to burnout in physicians.

### Increasing Workload

Numerous studies have reported that increasing workload is one of the leading sources of **job related stress**. Workloads in radiology have substantially increased in the last 20years with the advent of **PACS** (Picture Archiving and Communications Systems), **increased utilisation of**

**advanced cross sectional imaging** with much larger sets of data to analyse, voice recognition software and self-editing, and an overall increase in the number of imaging studies read. Bhargavan et al. noted an **increase of 70.3% annual work relative value units per full-time equivalent radiologists from 1991–1992 to 2006–2007**.

The review notes other factors contributing to a sense of work overload include long work days with increased after hours responsibilities, greater expectations for report turnaround times, conflicting demands on time (clinical, academic, administrative), and inadequate staffing. Studies also report that radiologists working a higher number of night shifts may be at a higher risk of burnout.

### Practice Environment

Current practice environments may also contribute to increasing levels of physician burnout, as highlighted in the review. Studies suggest that 75% of all physicians are now employed by large organisations such as academic medical centres, health maintenance organisations, large practice groups and hospitals. Several authors have stated that an **ineffective, outdated, and dominant hierarchical leadership paradigm may be a contributing source of burnout among radiologists**. An ascendant medical bureaucracy coupled with drives toward commoditisation, market consolidation, and cost containment may contribute to low physician morale.

Working in a private practice setting has also been reported to be a potential contributory factor to radiologist burnout. Chew et al. reported a higher prevalence of emotional exhaustion, depersonalisation, and lack of personal accomplishment in private practice radiologists compared to those in academic practice, although this difference was only statistically significant for emotional exhaustion. However, it is to be acknowledged that the study sample was small and limited to only a specific subspecialty of radiology (musculoskeletal radiologists) and hence larger studies are warranted.

The practice setting of an academic radiologist has its own unique contributory factors to radiologist burnout. There are a number of reasons one chooses to pursue a career in academics, including the opportunity to teach, perform research, work with expert sub-specialist colleagues, and experience the complexity of cases seen at a tertiary referral centre. Anything that impedes academic radiologists from accomplishing these goals act as stressors and may lead to burnout. The pressure to publish or obtaining external funding, difficulty/delay in getting promoted to higher academic rank and having inadequate time to teach the trainees are important factors that can cause career dissatisfaction among academic radiologists, potentially contributing to burnout.

The review also states that the stage of the physician's career may also have a role to play in the incidence of burnout. Dyrbye et al. surveyed a large sample of US physicians from all specialties and found that middle career physicians (11–20 years) worked more hours, took more call, reported lowest specialty satisfaction, were more dissatisfied with work-life balance, and struggled more with emotional exhaustion and burnout than their early or late career colleagues. Although not specific to radiologists, a study on physician wellness at Stanford University reported that suboptimal compensation may result in professional dissatisfaction.

### Communication and Autonomy

Poor communication is an additional driver of job dissatisfaction, according to the review. Perceived lack of appreciation and recognition for one's work, lack of input and involvement in the decision making process, lack of support, and lack of transparency are important factors that may lead to discontent and potentially increase burnout symptoms.

**Loss of professional autonomy can contribute to burnout. Lack of control over daily clinical schedule, on call responsibilities, work pattern and vacation schedule may lead to decreased satisfaction with work-life balance, and thereby contribute to work-related stress.**

### Work Environment: PACS and Electronic Medical Record and Isolation

The advent of PACS and the electronic medical record (EMR) has improved the delivery of medical care in many ways, but has also contributed to the **increasing isolation of the radiologist**. Before PACS, regular face-to-face interactions between referring clinicians and clinical radiologists were common practice. As a result of these interactions, the radiologists developed a greater understanding of the clinical problem at hand, which in turn led to more meaningful and impactful radiology reports.

The review finds that apart from improving patient care, such frequent interactions with other health care professionals also **enhanced the radiologist's sense of belonging to the healthcare team** and reinforced the critical role played by them in deciding optimal patient management. An unintended, unfortunate negative effect of PACS has been the substantial decrease in the face-to-face and telephone consultations between referring physicians and radiologists. This resultant increase in isolation of radiologists from other health care professionals may potentially contribute to a low sense of personal achievement and increased depersonalisation.

**The sedentary and stationary aspect of radiology and working in the dark may also adversely affect the radiologist's sense of well-being.** Reduced sunlight and associated disruptions in circadian rhythm can cause seasonal affective disorder and may contribute to depression and burnout in professionals such as radiologists, who work in areas of low ambient light for prolonged periods of time.

### Trainee Burnout

High burnout rates radiology trainees have also been examined in this review. McNeeley et al. surveyed 266 radiology trainee members of the Association of University Radiologists and reported that over 50% of the radiology residents may be experiencing symptoms of emotional exhaustion and depersonalisation. Interestingly, subjective self-assessments of financial strain were statistically significant predictors of depersonalisation and emotional exhaustion symptoms. Furthermore, the review found there was a statistically **significant correlation between recent moonlighting activity and higher levels of personal achievement, lower emotional exhaustion, and greater quality of life**. A more recent study published in 2017 reported similar findings of high burnout rate among radiology residents in New England. Increased residency year was shown to have statistically significant correlation with high emotional exhaustion as well as depersonalisation.

### Interventions to reduce burnout in radiologists - promote health and wellness

According to the report, possible solutions for radiologist burnout are presented in 2 categories: physician-directed interventions and organisational interventions.

#### Physician-Directed Interventions

The report states that an important aspect of preventing and treating burnout is “restoring lifestyle balance” within four domains: physical, emotional/spiritual, relationships, and work-time off balances.

### Organisation-Directed Interventions

Implementing of organisation strategies to promote physician well-being should begin with acknowledging and assessing the problem. The acknowledgement of physician burnout as a problem demonstrates that the organisational leadership cares about the well-being of its physicians, and is the necessary first step needed to make progress. Organisation interventions that combine elements such as structural changes to the organisation, encouraging open communication between health care leadership and physicians, and cultivating a sense of teamwork and job control tend to be the most effective in reducing physician burnout.

### Organisational Wellness Committee

The report proposes having a hospital organisational committee dedicated to physician wellness is key to acknowledging and addressing physician burnout and is gaining increasing popularity among health care organisations. These committees have multiple names such as a physician wellness committee or burnout prevention committee. However, the common goal is to actively survey and optimise physician wellness and satisfaction through targeted interventions. To ensure success, these committees should have the unwavering support of the organisation's leadership. The committee should be made up of providers from varying specialties at different stages of professional career as well as administrators.

After analysing data regarding the prevalence of burnout, the committee should develop targeted interventions based on the unique issues and suggestions received. Improvement of problems identified by radiologists, and all physicians alike, will improve physician satisfaction and provide the sense that their opinions are valued by the organisation. The committee should then report back to the physicians and present the action items created to address specific issues, and the results of those interventions.

### Wellness and Burnout Resources Provided by Organisation

The review says that organisations should also provide resources to make it easier for physicians to implement individual ways to prevent burnout, and to deal with difficult situations. The occurrence of frequent difficult situations (e.g., with patients, staff, colleagues, trainees, leadership) is associated with increased physician burnout and dissatisfaction. Resources to deal with difficult situations can include a listing of books or websites on coping strategies, a physician outreach program, a **24/7 physician hotline**, or a regular scheduled opportunity to gather and discuss these issues. **Opportunities should be provided to develop important non-medical skills that can help mitigate burnout.** These skills include: team leadership, communication, stress management, problem solving, project management, quality improvement, and the basics of business and finance.

The study presents additional key organisational strategies that can help reduce professional burnout including **designing organisational systems to address human needs**, developing leaders with participative management competency, building social community, **removing sources of frustration** and inefficiency, **reducing preventable patient harm**, supporting health professionals involved in medical errors, and bolstering individual wellness. Organisational interventions designed to promote greater employee control over work time and improve their work-life balance can help reduce psychological distress and increase job satisfaction. With a strong emphasis on organisational effectiveness, leadership interventions must focus on techniques and strategies that can positively frame change and increase overall productivity while maintaining and promoting physicians' well-being.

Burnout is pervasive among clinicians, and often goes under diagnosed and under reported. The incidence of burnout in health care professionals including radiologists is increasing at record levels. Urgent measures are needed to address this global malady. Several individual and organisation interventions have been discussed to help prevent burnout in radiologists and promote well-being. Preventing burnout in radiologists is vital for ensuring high physician satisfaction, optimal health care delivery, and positive patient outcomes.

Source: [Academic Radiology](#)

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Published on : Wed, 3 Apr 2019