

Krista L Kaups MD,  
MSc, FACS  
Professor of Clinical  
Surgery UCSF Fresno

# Avoiding Burnout- Promoting Resilience: Strategies for the Surgeon

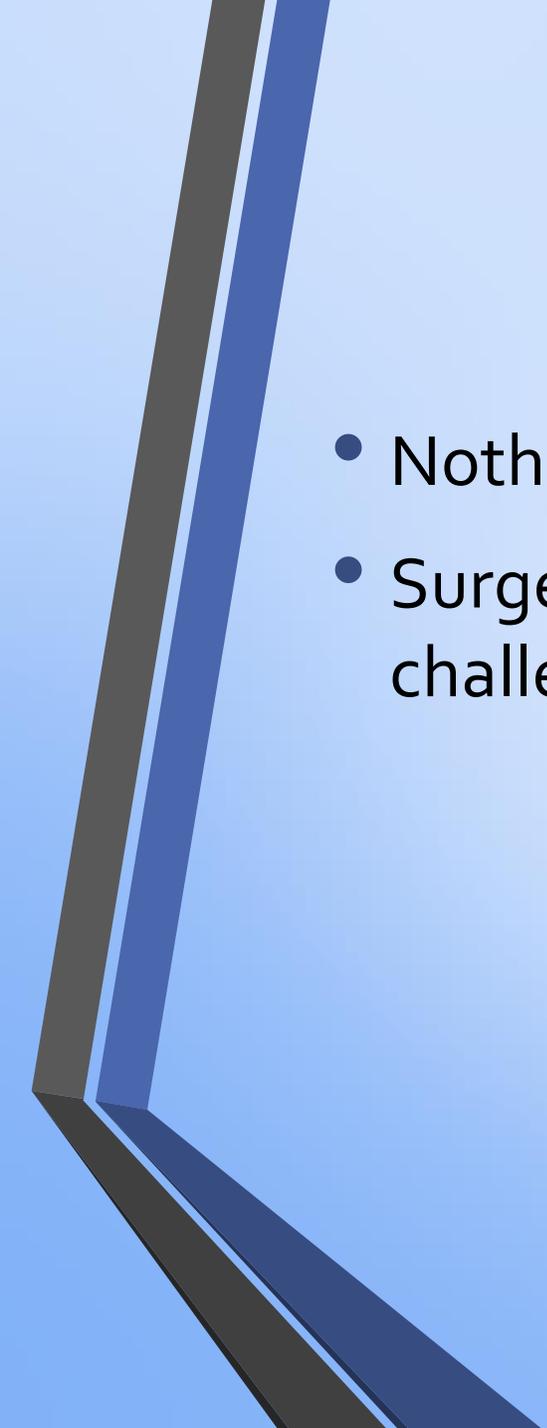


The UCSF logo is positioned in the upper left corner of the image. It consists of the letters 'UCSF' in a bold, blue, sans-serif font. The 'U' and 'C' are connected, and the 'S' and 'F' are also connected. The background of the entire slide is a light blue gradient with a dark blue and grey geometric shape on the left side.

**UCSF**

The background of the slide is a photograph of a mountainous landscape, likely Yosemite National Park. The central focus is a large, grey, granite rock formation with a flat top, possibly Half Dome. The sky is filled with dramatic, grey and white clouds. In the foreground, there are dark green evergreen trees and a rocky path leading up the mountain. The overall scene is rugged and scenic.

**UC San Francisco  
Fresno Medical Education Program  
Department of Surgery**

- 
- Nothing to disclose
  - Surgeon who has had the opportunity to experience the challenges and privileges of surgical practice

# Burnout: What is it?

- **Multi-step progression over time**
- **Work-related triad:**
  - **Emotional exhaustion:**
    - Emotionally overextended and exhausted by one's work
  - **Depersonalization:**
    - Callous or dehumanized perception of others
  - **Low personal accomplishment:**
    - Dissatisfaction with one's job-related accomplishments

Maslach, 1996

# Burnout

- Refers specifically to one's relationship to work (unlike depression)
- Most often seen in occupations with high level of personal involvement and interactions with others, and significant and prolonged stress
- Groups, as well as individuals, can be affected by burnout

# How often does it happen?

Surveys among surgeons of various specialties have indicated a high prevalence:

Otolaryngologists (n= 351): 70% (Golub, 2008)

Microvascular head-neck surgeons: 75% (Contag, 2010)

Transplant Surgeons (n= 209): 38% (Bertges, 2005)

General surgeons (n= 582): 32% (Campbell, 2001)

2008 ACS survey (n =7905): 40% of respondents met criteria for burnout

# Burnout

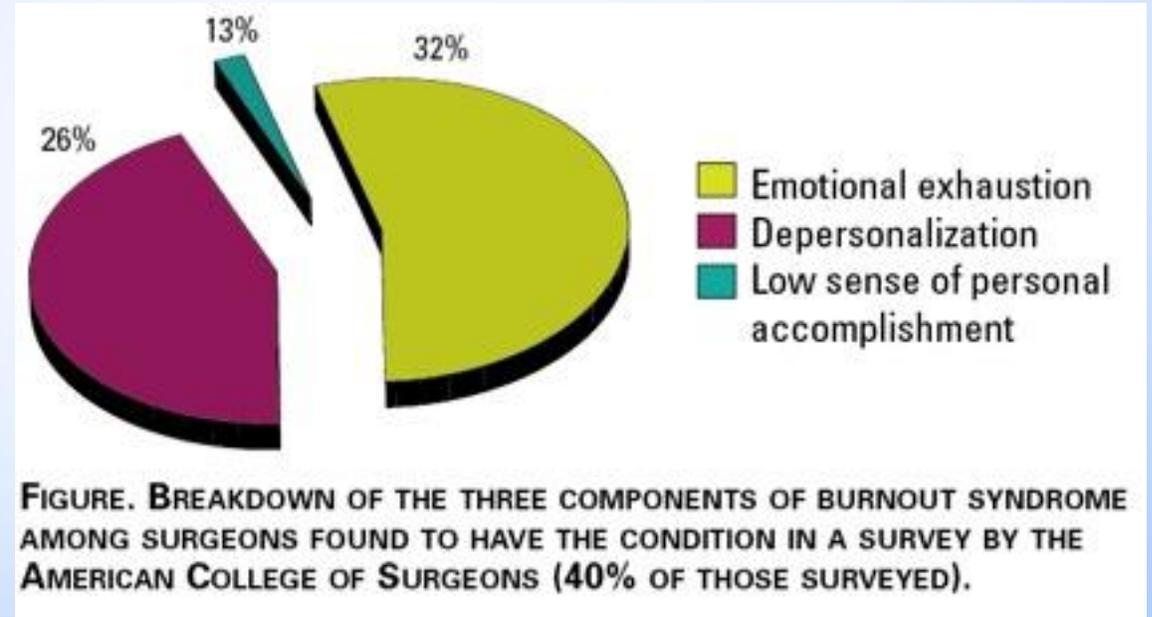
- High emotional exhaustion ( $\geq 27$ )
- High depersonalization ( $\geq 10$ )
- Low personal accomplishment ( $\leq 33$ )

	Otolaryngology Chairs	OB/GYN Chairs	Family Physicians	Emergency Physicians	Intensivists
Emotional exhaustion	17.5	29.9	23.2	26.2	22.2
Depersonalization	4	9.1	10.2	16.5	7.1
Personal accomplishment	32.8	41.5	40.9	37.2	30.9

Laryngoscope 115: November 2005

Johns and Ossoff: Burnout in Academic Chairs of Otolaryngology

# ACS Survey



Surgeons tend to have emotional exhaustion, depersonalization – but maintain sense of personal accomplishment

# Demographic Predictors of Burnout



- Younger age (under 50 y)
- Hours worked per week
- Female gender
  - 60% more likely than men to report burnout
  - Higher emotional exhaustion, lower depersonalization
  - Odds increased 12-15% for each addt'l 5 hours worked over 40 hrs/wk

Balch 2010

# Likelihood of Burnout Increases When:

- Excessive workload
- Financial stressors present
- Work invading family life
- Inability to care for personal health
- Limited control over one's work
- Exclusion from important decisions made at workplace
- Lack of sense of community in workplace



# What Attitudes and Values Are Incorporated Into Self as Part of Professional Identity Construction When Becoming a Surgeon?

- Cope A et al. Acad Med. 2017 Apr;92(4):544-549
- Interviews of 16 postgraduate surgeons
- Participating surgeons described learning personal values or attitudes that they regarded as core to "becoming a surgeon" and key to professional identity construction.
- Learning to be a perfectionist, to be accountable, and to self-manage and be resilient. As well as self-critical, sometimes with the unintended consequence of seeming neurotic
- Learning effective teamwork as well as learning to take initiative and be innovative, which enabled them to demonstrate leadership and drive actions and agendas forward within the health care organization where they worked.

# Stressors Associated with Increased Risk for Burnout:



- **Lack of autonomy**
- **Difficulty balancing personal and professional life**
- **Less spouse/partner support**
- **Excessive administrative tasks**
- **High patient volume**

Shanafelt 2003, 2005; Spickard 2002

Multiple traumas, a unit full of ventilators, and patients trying to die on me all day... I'm sorry what were you saying about your busy day with the stapler?



your  cards  
someecards.com

# Common Signs/Symptoms of Burnout

- Emotional withdrawal
- Increasing cynicism reflecting depersonalization
- Irritable behavior and workplace conflict
- Diminished interest in providing safe and optimal patient care

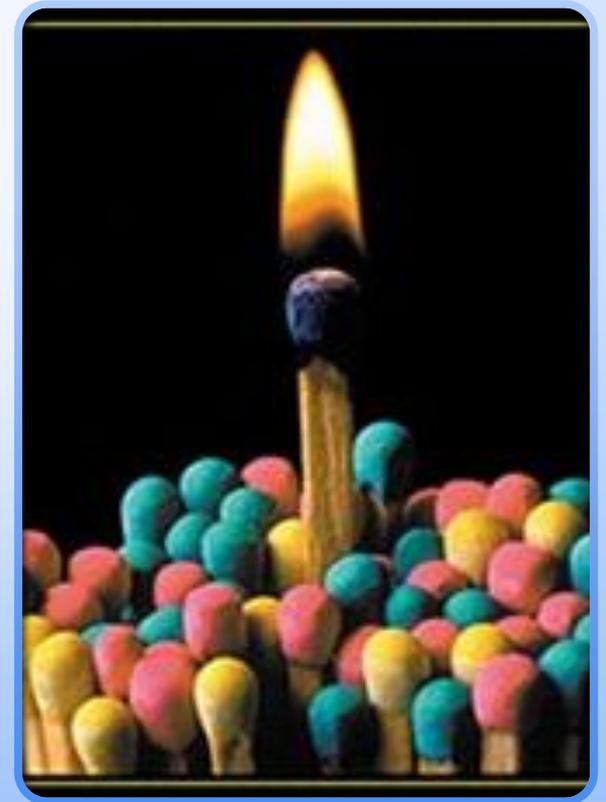


# Quality of Life and Burnout Rates Across Surgical Specialties: A Systematic Review

- Pulcrano M et al. JAMA Surg. 2016 Oct 1;151(10):970-978
- 16 specialties included
- Pediatric (86% to 96%) and endocrine (96%) surgeons demonstrated the highest career satisfaction; some of plastic surgeons (33%) and vascular surgeons (64%) were least satisfied.
- Residents demonstrated a significantly higher risk for burnout than attending surgeons across multiple specialties, including obstetrics and gynecology, otolaryngology, and orthopedic surgery.
- One-third of the studies found hours worked per week to be a statistically significant predictor of burnout, decreased career satisfaction, and poorer QOL

# Signs/Symptoms (and Consequences) of Burnout:

- **Physical exhaustion**
- **Poor sleep patterns and insomnia**
- **Giving up outside activities**
- **Alcohol and other substance abuse**
- **Depression and anxiety**
- **Job dissatisfaction – and career change or early retirement**
- **Suicide**



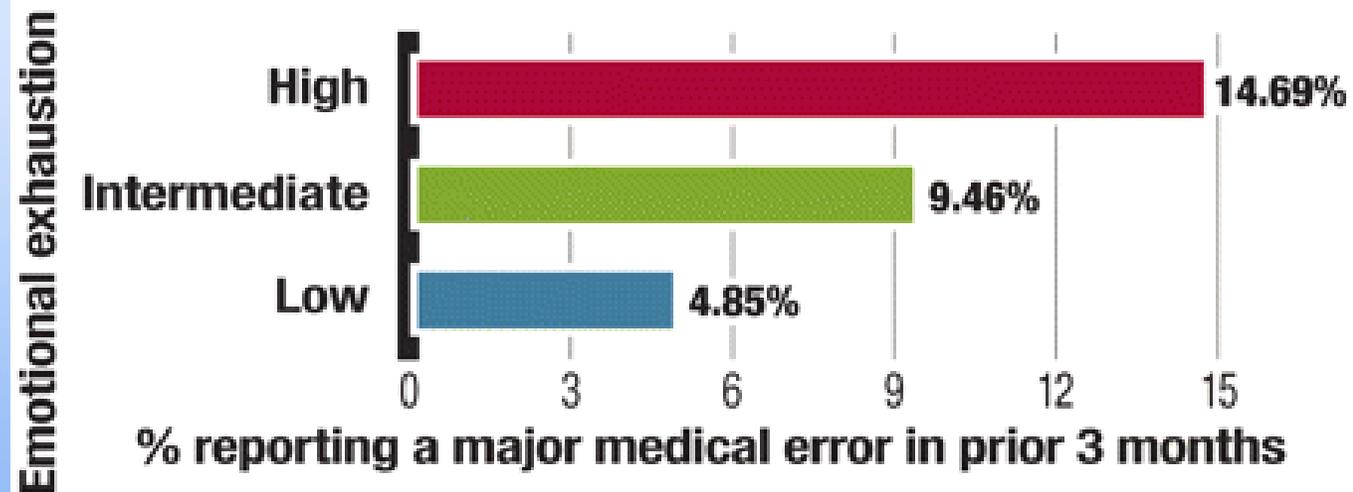
# Surgical Professionalism Issues

- **Judgment and surgical errors**
- **Adverse patient events**
- **Adversarial or weakened relationships with colleagues and staff**
- **Impaired interactions with patients and families**
- **Diminished commitment and dedication to productive, safe and optimal patient care**

# Burnout and Errors

## Emotional Exhaustion Linked To Surgeons' Errors

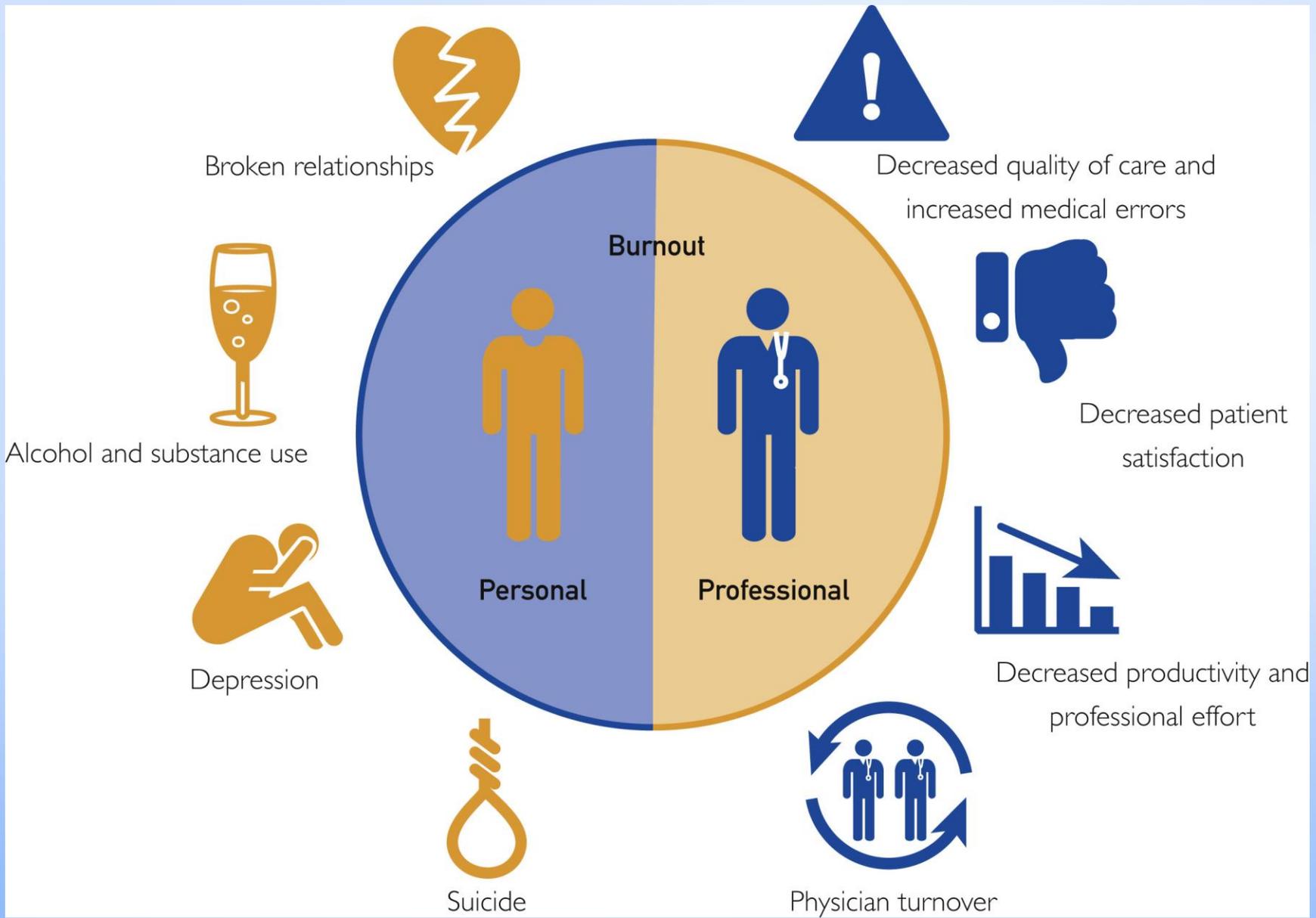
Surgeons with low emotional exhaustion scores were least likely to make a major medical error; surgeons with intermediate emotional exhaustion scores were more likely to make a major medical error; and surgeons with high emotional exhaustion scores were at the highest risk of making a major medical error.



Source: Tait Shanafelt, M.D., et al., *Annals of Surgery*, November 19, 2009

# The Relationship Between Professional Burnout and Quality and Safety in Healthcare: A Meta-Analysis

- Salyers MP et al. J Gen Intern Med. 2017 Apr;32(4)
- 82 studies including 210,669 healthcare providers
- Statistically significant negative relationships emerged between burnout and quality ( $r = -0.26$ , 95 % CI [-0.29, -0.23]) and safety ( $r = -0.23$ , 95 % CI [-0.28, -0.17]).
- In both cases, the negative relationship implied that greater burnout among healthcare providers was associated with poorer-quality healthcare and reduced safety for patients.



**Mayo Clinic Proceedings 2017 92, 129-146 DOI:  
(10.1016/j.mayocp.2016.10.004)**



# Recognizing Burnout

- High prevalence of burnout and distress among surgeons
- Most of us have experienced it – and can probably identify our personal risk factors
- Major personal and professional consequences on both personal and professional levels



# What's the alternative?

- Well-being as a goal
- Intervention study of 1150 ACS Fellows
- 3-step electronic intervention: physician well-being index, followed by feedback and then evaluation of feedback
- Surgeons' subjective evaluation of personal well-being relative to colleagues was poor – most (90%) believed that their well-being was at or above average

Shanafelt, Ann Surg, 2014

## Surgeon Well-Being

# Surgeon *Well-Being*



AMERICAN COLLEGE OF SURGEONS  
*Inspiring Quality:  
Highest Standards, Better Outcomes*

Surgeon well-being is vital  
for you, and for your  
patient's success.

**The College cares about your  
well-being and wants to help!**

Despite a high prevalence of distress, few physicians seek help. The American College of Surgeons (ACS) is here to help and has put together the following resources to support the challenges you may face as a surgeon. Click on a box below to explore the resources we have compiled.

Physician Well-Being Index

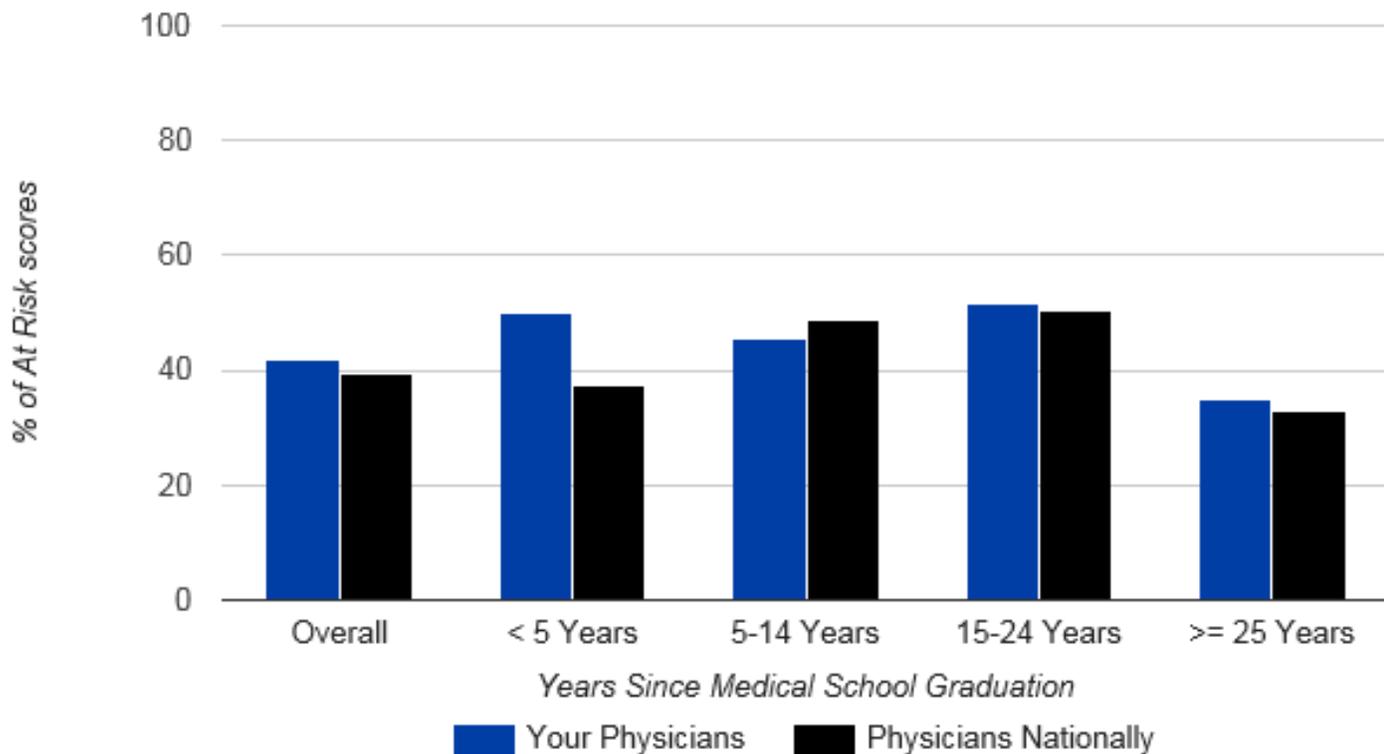
ACS Resources

AMA Resources

ACGME Resources

<https://www.facs.org/member-services/surgeon-wellbeing>

# Percent Physicians with High Levels of Distress

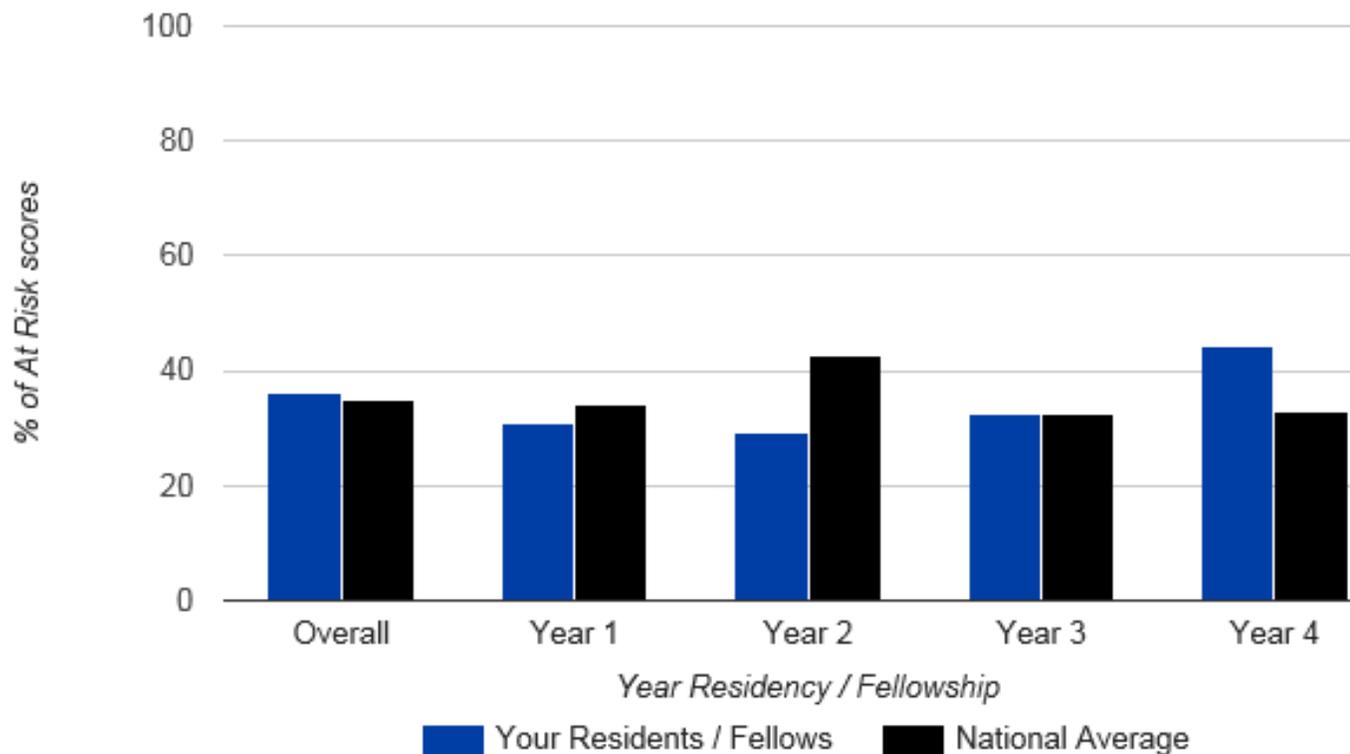


- Chart shows percent of individuals (overall and by year since medical school graduation) with a Physician Well-Being Index score of  $\geq 3$  (higher score = greater risk). In a sample of US physicians (n=6880), those with a Well-Being Index score  $\geq 3$  were at greater risk for number of adverse outcomes including:
- 2 fold higher risk of reporting a recent medical error
- 5 fold higher risk of burnout
- 4 fold higher risk of severe fatigue
- 2 fold higher risk of suicidal ideation
- 3 fold higher risk poor overall quality of life

# Percent Physicians with High Levels of Distress

<b>Years</b>	<b>Your Physicians</b>	<b>Sample Size</b>	<b>Physicians Nationally</b>
Overall	41.82%	1277	39.28%
< 5 Years	50.00%	8	37.21%
5-14 Years	45.69%	267	48.86%
15-24 Years	51.45%	344	50.30%
>= 25 Years	35.11%	658	32.91%

# Percent Residents / Fellows with High Levels of Distress



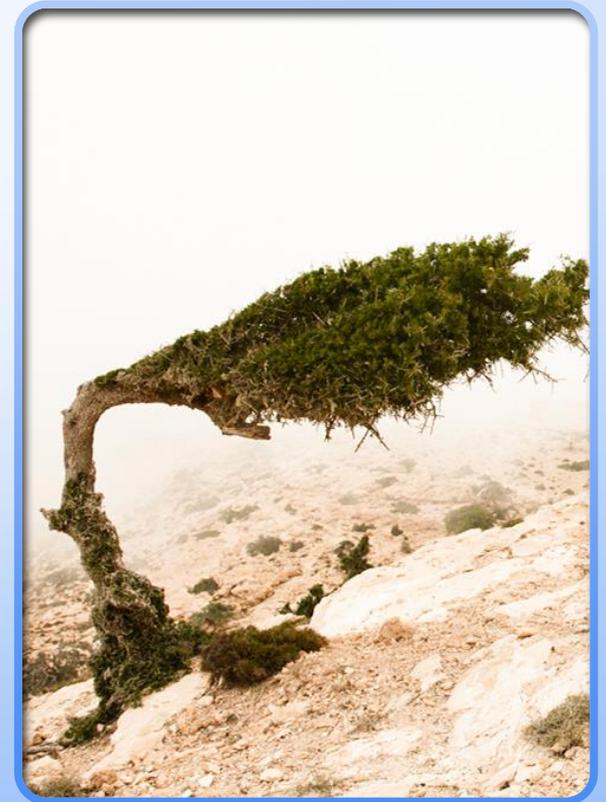
- Chart shows percent of residents/fellows (overall and by year in residency / fellowship) with a Well-Being Index score of  $\geq 5$  (higher score = greater risk). In a national sample of  $>1700$  residents/fellows, those with a Well-Being Index score  $\geq 5$  were at greater risk for number of adverse outcomes including:
- 2 fold higher risk of reporting a
- recent medical error
- 2 fold higher risk of suicidal ideation
- 3 fold higher risk poor mental
- quality of life
- 4 fold higher risk of burnout
- 2 fold higher risk of severe fatigue

# Percent Residents / Fellows with High Levels of Distress

<b>Year</b>	<b>Your Residents /Fellows</b>	<b>Sample Size</b>	<b>Nationally</b>
Overall	36.33%	278	34.91%
Year 1	31.08%	74	34.03%
Year 2	29.27%	41	42.76%
Year 3	32.69%	52	32.68%
Year 4	44.14%	111	32.91%

# Resilience

- The capacity to recover quickly from difficulties; toughness; the ability of a substance or object to spring back into shape; elasticity
- Synonyms: toughness, tenacity, “grit”, adaptability, hardiness, endurance, vigor, adaptability
- “The ability to recover from setbacks, adapt well to change, and keep going in the face of adversity” (Evans, Harvard Business Review, Jan. 2015)



# Resilience in Healers



Adapted from Shapiro et al., 2005 "Art of Doctoring"

# Coping Strategies Correlated with Higher Frequency of Emotional Exhaustion

- **Keep stress to myself**  
( $r = .23$ ;  $p < .0001$ )
- **Concentrate on what to do next**  
( $r = .16$ ;  $p < .0001$ )
- **Go on as if nothing happened**  
( $r = .07$ ;  $p < .0001$ )

Lemaire, Health Services Research, 2010



# Addressing Burnout

- Physician burnout has been shown to influence quality of care, patient safety, physician turnover, and patient satisfaction.
- Although burnout is a system issue, most institutions operate under the erroneous framework that burnout and professional satisfaction are solely the responsibility of the individual physician.
- Engagement is the positive antithesis of burnout and is characterized by vigor, dedication, and absorption in work

Shanafelt, Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout, Mayo Clin Proc, 2017

Driver dimensions



**Mayo Clinic Proceedings 2017 92, 129-146 DOI:  
(10.1016/j.mayocp.2016.10.004)**



# What we know

- “Work-life balance” although often discussed and evaluated, is a myth
- “Work-life integration” may be a better term
- Stressors are inevitable – it’s how we deal with them that matters
- Resilient people possess three characteristics — a staunch acceptance of reality; a deep belief, often buttressed by strongly held values, that life is meaningful; and an uncanny ability to improvise. (Coutu, How Resilience Works, Harvard Business Review)

# Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis.

- West CP et al. Lancet. 2016 Nov 5;388(10057):2272-2281.
- 2617 articles: 15 randomized trials ( 716 physicians )and 37 cohort studies (2914 physicians)
- Overall burnout decreased from 54% to 44%, emotional exhaustion score decreased from 23.82 points to 21.17 points ; depersonalization score decreased from 9.05 to 8.41
- High emotional exhaustion decreased from 38% to 24% and high depersonalisation decreased from 38% to 34%
- Both individual-focused and structural or organisational strategies can result in clinically meaningful reductions in burnout among physicians.

# Interventions, strategies and changes

Identify your personal and professional values and priorities. Make a list, rank it.

1. What are your values? What matters? What is important?
2. How do you optimize your career?
3. Identify and manage practice-specific stressors
4. Balance personal and professional goals
5. Work on personal strategies for wellness

Balch and Shanafelt, *Combating Stress and Burnout in Surgical Practice*, Adv Surgery, 2009.

# Professional Goals

1. Why did I choose to become a physician?
2. Why did I choose to become a surgeon?
3. What do I like most about my job?
4. What motivates me professionally?
5. By the end of my career, what 3 things do I hope to have accomplished?

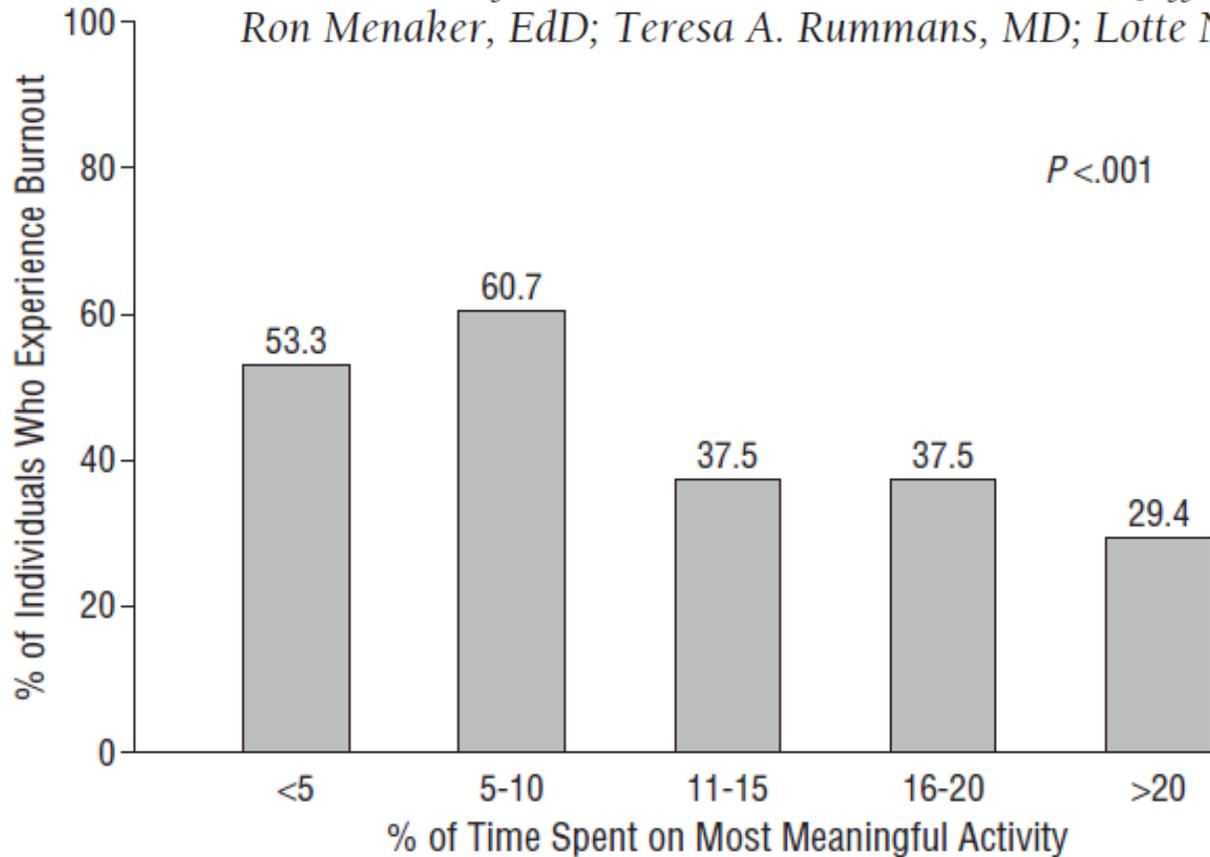
Shanafelt, Ann Surg Onc, 2007

# Interventions and changes (to develop resilience)

- Self-awareness: ask a friend, use an evaluation tool
- Take care of yourself. We need to move beyond “sit when you can, eat when (and what) you can and sleep when you can”
- Exercise
- Have a personal physician (who is NOT you) – and see them regularly
- Finding meaning, a sense of calling, in your work. What part brings you joy?
  - How can you enhance that part of your practice?
  - Are there things that are less enjoyable that can be reduced?
  - Sometimes it’s OK to just say no. (Look at your motivation for saying yes!)

# Career Fit and Burnout Among Academic Faculty

Tait D. Shanafelt, MD; Colin P. West, MD, PhD; Jeff A. Sloan, PhD; Paul J. Novotny, MS; Greg A. Poland, MD; Ron Menaker, EdD; Teresa A. Rummans, MD; Lotte N. Dyrbye, MD



**Figure 2.** Burnout by amount of time spent on activity viewed most personally meaningful. The y-axis shows the percentage of individuals within each group who experience burnout. The x-axis indicates the amount of time spent in the activity viewed as most personally meaningful.

Physicians who spent at least 20% of their time in the aspect of work that was most meaningful to them had a rate of burnout roughly half that of those who spent less than 20% effort in the activity that was most meaningful to them.

This association was strong and was the largest predictor of burnout on multivariate analysis after factors were controlled.

# Interventions and changes

- Cultivate relationships
- Mindfulness, prayer, meditation.
- The critical importance of a sense of community, be it with colleagues, peers, friends. This is also one of the strengths and benefits of the ACS.
- Hobbies
- Volunteer work/community service



# Organizational interventions and changes

- Confirm your own well-being before you embark on a project – otherwise it's another source of stress (you can't save a drowning person if you're not able to swim)
- Set up a in/formal mentoring program
- Become aware of resources
- Talk with your colleagues about preferred professional activities – and assign tasks accordingly
- Be willing to listen

# Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis

- Panagioti M et al. JAMA Intern Med. 2017 Feb 1;177(2):195-205
- 20 independent comparisons from 19 studies (n = 1550 physicians)
- Mean age, 40.3 years; 49% male
- Interventions associated with small significant reductions in burnout; equal to a drop of 3 points on the emotional exhaustion domain
- Subgroup analyses suggested significantly improved effects for organization-directed interventions (SMD = -0.45; 95% CI, -0.62 to -0.28) compared with physician-directed interventions (SMD = -0.18; 95% CI, -0.32 to -0.03).

# Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis

- Interventions combining several elements:
  - Structural changes
  - Fostering communication between members of the healthcare team
  - Cultivating a sense of teamwork and job control
- Combating a “fraying cohesive identity”

- Pressure pushing down on me
- Pressing down on you no man ask for
  - Under pressure
  - That burns a building down
  - Splits a family in two. . .
  - Chippin' around
- Kick my brains round the floor...
  - These are the days
  - It never rains but it pours
  - And love dares you to care
- For people on the edge of the night
- And love dares you to change our way
  - Of caring about ourselves
  - This is our last dance
  - This is our last dance
- This is ourselves under pressure
  - Under pressure
  - Pressure







"We take our work and our patients seriously.  
Ourselves never"

John F. Bilello, MD, FACS

**Stop**

Stop! Think about what it is that brings you joy in what you do.

**Choose**

Choose one thing that you can do for yourself – and do it

**Choose**

Choose one thing that you can do for your organization – and do it

**Where do I start?**

Life is messy

We are privileged

Resilience can be learned

