Summary Research

Meta-analytic research demonstrates mindfulness-based interventions (MBIs) are associated with various benefits for health and wellness, including:

- Reduced stress & rumination
- Decreased negative affect (e.g. depression, anxiety)
- More effective emotion regulation
- Increased focus & cognitive flexibility
- Improved working memory


A more recent meta-analysis of 171 studies taking place between 2000 and 2016 found that MBIs are, on average, associated with moderate improvement in psychiatric symptoms. While there is evidence to support its use for treating other challenges (e.g., eating disorders) the results indicate MBIs are most effective in treating:

- Depression
- Anxiety
- Physical pain
- Substance use disorders.


Evidence-Based Theoretical Models

Mindfulness Based Stress Reduction (MBSR) - [https://www.umassmed.edu/cfm/](https://www.umassmed.edu/cfm/)
Mindfulness Based Cognitive Therapy (MBCT) - [http://www.mbct.com/](http://www.mbct.com/)
Unified Mindfulness - [https://unifiedmindfulness.com](https://unifiedmindfulness.com)

Selected Reading

*Waking Up* by Sam Harris
[https://samharris.org/books/waking-up/](https://samharris.org/books/waking-up/)
The Mindful Way Through Depression: Freeing Yourself From Chronic Unhappiness
By Mark G. Williams, John D. Teasdale, Zindel V. Segal and Jon Kabat-Zinn
https://psycnet.apa.org/record/2008-10897-015

The Healing Power of Mindfulness
Full Catastrophe Living (Basis of MBSR Curriculum)
Both by Jon Kabat-Zinn

The Science of Enlightenment: How Meditation Works
By Shinzen Young
https://www.shinzen.org

Mindsight: The New Science of Personal Transformation
Daniel J. Siegel
https://www.drdansiegel.com/books/mindsight/

Online Mindfulness Courses, Technological Aides

Headspace
https://www.headspace.com

Waking Up
https://wakingup.com/

Unified Mindfulness
https://unifiedmindfulness.com/core

Mindfulness Elective, Local Programs and Resources

The Mindfulness Institute
http://www.mindfulnessinstitute.ca/

Wellspring Edmonton
https://wellspring.ca/edmonton/programs

Lifestyle Meditation
https://www.lifestylemeditation.com/
Cannabis, Addictions, and YOU
A Resource for University of Alberta Resident Physicians

Cannabis Legalization...
- Cannabis was legalized in Canada in October 2018.
- Individuals aged 18 years and over can purchase cannabis and cannabis products from licensed stores and only buy or carry 30 grams at a time for personal use.
- Only 4 cannabis plants can be grown per household.
- Smoking cannabis and cannabis products is restricted in some areas.

Medical Authorization vs Prescription...
- Cannabis is “medically authorized,” not prescribed.
- Only medications that have been assigned a Drug Identification Number (DIN) by the government can be prescribed.
- Cannabis or cannabis products have not been endorsed by Health Canada as pharmaceutical and have not been assigned a DIN.
- Currently, research is in early stages and only shows some benefit of cannabis and cannabis products in limited indications like refractory epilepsy (children) and palliative patients.

Cannabis Facts...
- Cannabis is the most commonly used psychoactive substance by Canadians between the ages of 15 and 24 years old.
- Cannabis can be harmful to brain development.
- The brain does not stop developing until around age 25.
- Just because cannabis is legalized, rules pertaining to impairment still apply:
  - Cannabis causes impairment and driving while impaired is illegal.
  - Cannabis cannot be within reach of anyone in a vehicle.
  - Physicians can develop addictions, just like members of the general public can.
  - It is important that addictions are diagnosed early, and a treatment plan is made and complied with.
  - The U of A, AMA, and CPSA have resources available to help and work with residents in supportive, rather than punitive, fashion.

Cannabis, Addictions and Your Health as a Resident
The importance of physician health is often under-appreciated during residency training and even into independent practice. It is important to remain vigilant about your own health.

If you do develop an addiction, it is also important to seek help and assistance from the support systems outlined below, your family doctor, and if needed, from specialists involved in your care.

Cannabis Mechanism of Action...
- Cannabis contains Cannabidiol (CBD) and Tetrahydrocannabinol (THC).
- Cannabis acts through endocannabinoid pathway via CB1 and CB2 receptors.
- While the receptors are distributed across many organs in the body, those in the brain impact behaviour the most.
Addictive Potential of Cannabis...
- 1 in 11 people who use cannabis regularly will become addicted to it.
- Cannabis Use Disorder is a clinical diagnosis with significant health and social impacts for the patients.
- Addiction potential of some synthetic cannabinoids (e.g. ‘spice’) is unknown but can be serious.
- When cannabis is used frequently and heavily on a long-term basis, this impairment can last much longer than 24 hours.

Cannabis Use and Addictions in Residents and Occupational Health and Safety Implications ...
- Cannabis use can impair judgment and decision-making.
- Cannabis can decrease your ability to concentrate (e.g., racing thoughts) and form new memories.
- Impairment from cannabis can last for more than 24 hours, so weekend use is not necessarily safer for return to work Monday.
- Cannabis can increase your risk of developing psychosis.

Bottom Line!
Residents impaired from cannabis use are more likely to make medical errors, neglect patient care, and be involved in serious workplace accidents that could cause harm to themselves and others.

How to Get Help:

The Office of Advocacy & Wellness (OAW)
https://www.ualberta.ca/medicine/programs/support-wellness/postgraduate
CALL: 780-492-3092/780-492-3150
The OAW looks after issues pertaining to the health and well-being of learners. The Office also advocates on their behalf. Learner health and well-being include all areas related to both physical and mental health. It also provides counselling on academic and personal matters.

The Alberta Medical Association (AMA)’s Physician & Family Support Program (PFSP)
https://www.albertadoctors.org/services/pfsp
CALL: 1-877-SOS-4MDS
1-877-767-4637
CONFIDENTIAL 24 hours a day / 7 days a week / 365 days a year.

This resource was compiled by a Subcommittee of the U of A PGME’s Resident Well-Being Committee (RWBC) consisting of:
Dr. Bina Nair, Child and Adolescent Psychiatrist
Dr. Aditi Amin, Occupational Medicine Resident
Dr. Maulik Baxi, Public Health & Preventive Medicine Resident

For more information on the RWBC see:
https://www.ualberta.ca/medicine/programs/support-wellness/postgraduate/committee

June 2019
Opioids, Addictions, and YOU
A Resource for University of Alberta Resident Physicians

Did You Know…
- Alberta has seen 1 death almost every 12 hours in the year 2018 due to opioid overdoses.
- People who use opioids may not even know that they are taking fentanyl.
- Fentanyl is often mixed with other street drugs.
- As with the general public, approximately 8–10% of physicians have substance problems, including alcohol, opioids and others.
- Addiction is a common, chronic, relapsing health condition.
- It is important that it is diagnosed early, and a treatment plan is made and adhered to.
- The U of A, AMA, and CPSA have resources available to help and work with residents in supportive, rather than punitive, fashion.

Some Signs and Symptoms of Opioid Addiction…
- **Acute intoxication**: slurred speech; appearing “sedated”; pinpoint pupils; or visible injection sites.
- **Withdrawal**: anxiety; drug-craving; increased respiratory rate; increased heard rate; abdominal discomfort; and/or nausea and vomiting.
- **Tolerance**: may not show any effects.
- **Other signs**: “impaired social functioning”; engaging in “illegal behaviours” (e.g., to obtain money to purchase opioids); or legal problems.
- Opioid overdoses can be fatal.

Opioids, Addictions and Your Health as a Resident
The importance of physician health is often under-appreciated during residency training and even into independent practice. It is important to remain vigilant about your own health.

If you do develop an addiction, it is also important to seek help and assistance from the support systems outlined below, your family doctor, and if needed, from specialists involved in your care.

Opioid Mechanism of Action…
- Opioids are a diverse group of analgesic medications.
- They bind to opioid receptors (mu, delta or kappa) in the brain.
- Their effects are mainly inhibitory as they cause a decrease in neuronal excitability.
- Through their interaction with other cellular processes, they decrease the release of neurotransmitters involved in the sensation and perception of pain.
- This causes a blunted perception of pain and can increase feelings of pleasure.

Addictive potential of Opioids…
- The feelings of pleasure resulting from opioid use can make individuals want to continue experiencing those feelings.
- This can lead to individuals not taking opioids as prescribed and can lead to dependence.
Opioid Addictions in Residents and Occupational Health and Safety Implications ...

- Opioid use can affect both physical and cognitive function.
- Opioid use can result in slower reaction times.
- Opioid use can also lead to drowsiness and altered level of consciousness.
- Opioid use can result in a lack of insight and poor decision-making.
- As mentioned elsewhere in this resource, opioid overdoses can be fatal.

Bottom Line!
Residents impaired from improper use of opioids are more likely to make medical errors, neglect patient care, and be involved in serious workplace accidents that could cause harm to others and to themselves.

How to Get Help!
The Office of Advocacy & Wellness (OAW)
https://www.ualberta.ca/medicine/programs/support-wellness/postgraduate

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Connect to Care: The Emotionally Intelligent Physician

Emotional intelligence makes you a better physician. It protects from stress and burnout, enhances professional satisfaction and success, enriches communication and teamwork, and is the foundation of quality patient care. Additionally, there is a growing body of evidence that suggests physician emotional intelligence has a direct effect on patient outcomes1.

What is Emotional Intelligence?

Emotional intelligence is the ability to recognize and understand emotions in yourself and others and to use this awareness to manage your behavior and relationships. Emotional intelligence consists of four elements:

- **Self-awareness:** The ability to know what you are feeling and why.
- **Self-management:** The ability to manage one’s emotions and stay calm in distressing emotional situations.
- **Empathy:** The ability to identify with and understand the emotions, desires, needs, and perspectives of others.
- **Relationship management:** The ability to build and manage relationships and resolve conflict/disputes in a desired direction.

How do you Build Your Emotional Intelligence?

While emotional intelligence is critical for physician success a recent study shows doctors may lose these skills during medical school2. Likely due to the myriad of demands placed on them throughout their training. The good news is with focused effort emotional intelligence can be learned and strengthened. Here are a few simple strategies to get you started:

- **Check in with yourself**
- **Recognize early signs of stress, frustration, anger or other distressing feelings**
- **Ask yourself “What am I feeling?” “What pushes my buttons?”**

**Reflect on your emotional reactions:**

- **Stop and think about how you reacted and decide if it was the ideal reaction for you. If not, identify and practice a new response.**
- **Ask yourself “Why did I react this way?” “What options do I have?” “What do I really want?”**

**Reflect on how others feel:**

- **Actively listen**
- **Watch body language**
- **Put yourself in someone else’s shoes; consider their perspective and values**

**Reflect on relationships:**

- **Be curious about people, situations, events, and your environment**
- **Seek to understand**
- **Acknowledge the other person’s feelings**
- **Enhance your natural communication style**

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So, you witnessed some unprofessional behavior by a student/faculty member?

**Professionalism Button**

* AKA “Submitting an incident report”
* This is one of the ways we stay accountable!

**Anonymous Report**

**Named Report**

**Triage Committee**

- Meets every 4 weeks
- This committee reviews anonymous reports, observes investigations, and decides on any interventions
- Timeline = 4 months

**NOTE:** If 3 people report a concern regarding the same situation/behavior then a letter summarizing the concerns is sent to their direct faculty supervisor. Normal流程 process continues.

**Triage Officer**

- Reviews w/3 days
- Trposes officer will contact reporter
- Invitation to give more details
- Concern may be redirected to HR
- Confidential letter may be sent to that person's faculty supervisor
- Supervisor acknowledges receipt of letter, follows policy on investigating, maintains confidentiality, potential intervention

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**AND IF YOU'RE STILL CONFUSED**

**Email:** smyth@ualberta.ca

**Dr. Penny Smyth**

- Associate Dean of Professionalism
- For advice
- It's confidential!
- She's an expert
- Also really nice!
Faculty Concerns – We Know It’s Delicate

Scenario 1:

You are on your emergency rotation. It is Friday at 4:30 pm, and you see a patient that requires an urgent CT abdomen. You phone the radiologist to get the scan approved. You start the conversation, apologizing for calling with a radiologic request at this time on a Friday. The radiologist says nothing.

You then start explaining why you think the scan is indicated. Before you can finish the story, the radiologist interrupts you. In a loud voice, she informs you of the limited resources in radiology, and how difficult it is for her to always be the gatekeeper, and how hard it is to get work done with the frequent calls for imaging requests. When you start to tell her the story again, she interrupts once more, and asks you if this is really urgent, asked a number of details about the case, and then asks you if you examined the patient. You start the story again, trying to outline the patient’s exam. She interrupts a final time, stating that the scan is not needed, and hangs up.

You talk to your ER staff. He listens, and reassures you that you had tried. He then calls the radiologist and the scan is approved.

1. How do you feel?
2. Have you been mistreated by the radiologist?
3. What could you do in this situation?

Scenario 2:

You are a senior resident on the internal medicine inpatient service with a staff person you haven’t worked with before. Within the first 2 days, you notice a number of behaviours from the staff person that are unusual. The staff person falls asleep during the middle of a patient interview. She asked you how to manage a straight-forward case of urosepsis, and doesn’t really seem to know routine management steps. She arrives very late to scheduled meetings. There is no bedside teaching. She tells you that she has clinic during the day. So, she arrives to review consults at 4 pm and you end up leaving past 8 pm each night. Last night, you were on call with her, but you were unable to get hold of her. You ended up calling the staff person on the other service with questions.

1. How do you feel?
2. Have you been mistreated by the staff person?
3. What are appropriate expectations of physician teachers within FoMD?
4. What could you do in this situation?
“SOLO” Is For Red Cups

UCLA LONELINESS SCALE

Indicate how often each of the statements below is descriptive of you. Circle one letter for each statement:

O -- "I often feel this way"
S -- "I sometimes feel this way"
R -- "I rarely feel this way"
N -- "I never feel this way"

How often do you feel unhappy doing so many things alone?    O S R N
How often do you feel you have nobody to talk to?     O S R N
How often do you feel you cannot tolerate being so alone?    O S R N
How often do you feel as if nobody really understands you?    O S R N
How often do you find yourself waiting for people to call or write?   O S R N
How often do you feel completely alone?      O S R N
How often do you feel you are unable to reach out and communicate with those around you?     O S R N
How often do you feel starved for company?    O S R N
How often do you feel it is difficult for you to make friends?    O S R N
How often do you feel shut out and excluded by others?     O S R N

ADD UP YOUR SCORE

4 for each O
3 for S
2 for R
1 for N

Scores between 15 and 20 are considered a normal experience of loneliness.
Scores above 30 indicate a person is experiencing severe loneliness.

Articles on loneliness in medicine and the doctor’s lounge

Professional Loneliness and the Loss of the Doctor’s Dining Room:
http://www.annfammed.org/content/16/5/461.full

Bringing back the doctor’s lounge to help fight burnout:
https://www.cmaj.ca/content/191/9/E268

What happened to the doctor’s lounge?

Navigating Loneliness in the Era of Virtual Care:
Understanding Substance Use Disorder in Physicians

Substance Use Disorder in Physicians

- The prevalence of substance use disorder in physicians is equal to that in the general population (ref 2 & 3)
- Female physicians have a higher rate of alcohol abuse than male physicians (21.4% vs. 12.9%) (ref 2)
- Physicians with SUD were more likely to report a medical error within the previous three months (ref 2)

Physiology

- Substance use disorder is a “complex, neurobehavioral process that subverts and alters primitive brain reward system circuits” (MacNicol/ref 10)
Risk Factors for SUD

- Genetics/family history (e.g., adult children of alcoholics) (ref 1 & ref 4)
- Environmental/adverse childhood experience (ACE) score > 4/10 (ref 1 & ref 5)
- Early exposure to drug use (i.e., up to age 25 years of age) (ref 1)
- A dual diagnosis with mental illness – e.g., depression, bipolar disorder, anxiety, ADHD, burnout, personality difficulties, etc. (ref 1 & ref 6)
- Medical treatment of pain with opioids (ref 7)

Physician Groups at Higher Risk

- Anesthesiology
- Emergency medicine
- Psychiatry
- Family medicine
- Internal medicine (ref 8)

Drugs of Choice

**GENERALLY**

- 50% - alcohol
- 35% - opioids
- 8% - stimulants

**ANESTHESIOLOGY** - mortality rate is 3X other doctors

- 55% - opioids (esp. fentanyl & sufentanil)
- 28% - alcohol
- 8% - stimulants

(ref 8)
SUD Presentation

- The family is the first to notice changes
- A highly functional alcoholic may not present for treatment until years after the initiation of substance abuse
- Opioid abuse usually presents earlier. The initial presentation may be as an accidental overdose
- More than one substance may be abused (e.g., tobacco)
- Various behavioural addictions (e.g., gambling, gaming, workaholism, shopping, eating, pornography, sex, etc.) may also be present

Behavioural Changes at Work

- Late and subtle
- Withdrawal from family, friends and leisure activities
- Mood swings with periods of depression alternating with periods of euphoria
- Increased episodes of anger, irritability and hostility (i.e. disruptive behaviour)
  (ref 9)

Barriers to Seeking Help

- Stigma
- Fear of losing medical license
- Denial, shame, rationalization
- Over self-reliance
- Financial consequences of not working
- Lack of information regarding SUD and consequences to career
- Family members/colleagues “covering up” for the physician
Getting Help through PFSP

- There is effective treatment for substance use disorder (SUD)
- The Physician and Family Support Program (PFSP) facilitates treatment for Alberta physicians with SUD
- PFSP 24 hour assistance line may be called by the physician or a concerned party for advice and guidance
- Participation in the PFSP program is voluntary, confidential, and consultative

What happens when a physician with SUD asks for assistance from PFSP?

- When a caller to the assistance line identifies a concern about their substance use, PFSP may offer a meeting with the “Case Coordination team”
- The Case Coordination service is designed to support physicians with complex health concerns
- The team will discuss with the physician options for assessment and treatment
- The treatment may involve local outpatient resources and/or residential treatment
- Financial assistance for treatment is offered when needed

Role of the College of Physicians and Surgeons of Alberta (CPSA)

- CPSA considers SUD a medical condition. CPSA is responsible for monitoring physicians with health conditions
- The monitoring system is individualized based on the history of the physician
- Physicians with substance use disorders can benefit from enrolment in formalized maintenance and monitoring programs. Some studies indicate that this doubles the likelihood of maintained abstinence (ref 12)
- Maintenance of continued abstinence is essential both for physician health and to safeguard the public (CPSA Physician Health Monitoring Policy)
- Approximately 95% of Alberta physicians with SUD are successfully treated and retain their license with College of Physicians and Surgeons of Alberta (CPSA)
Alberta Medical Association
Physician and Family Support Program (PFSP)

1-877-767-4637
24 hours / 365 days of the year
albertadoctors.org/services/pfsp

References


(Production - 2018)
Naloxone Awareness & Training
UofA Resident Wellness Conference
21 November 2019

Aron Walker, Pharmacist
Pharmacy Manager, University Health Centre Pharmacy

The Hard Facts

Deaths in Alberta (Fentanyl and its analogues)
- 2014: 114
- 2016: 368
- 2017: 733 (2 deaths per day)
- 2018: 746
- Canada: More than 9000 deaths attributed to opioid overdose since 2016 (2017=11 deaths per day nationally)
- These numbers continue to rise despite increased awareness campaigns and media reporting
Costs of the Crisis:

Obvious emotional costs to victims and their families or loved ones

Costs to the health care system:
- Monetary costs of treating overdoses (non-fatal)
- Use of health care resources (beds, E.R. visits, ambulances etc)
- Emotional stress of first responders

Accidental Exposure/Overdose:

- 94% of opioid deaths happen by accident
- Users of other opioid or non-opioid illicit drugs that may be adulterated or contaminated with fentanyl (heroin, marijuana, cocaine, meth etc.)
- First responders
- Law enforcement, prison guards

Why so much talk about Fentanyl and Carfentanil?

- Fentanyl = up to 100 times more potent than morphine
- Carfentanil = 10 000 times more potent than morphine
- Opioid naive people can overdose on an amount of these drugs that is the size of a grain of sand
The Problem with Illicit Fentanyl

Symptoms of an opioid overdose:
- Central nervous system depression
  - Lethargy, difficulty staying awake, can’t walk or talk, slowing of pulse, slowing of breathing, limp body
- Skin is blue or pale and feels cold
- Vomiting
- Pin-point pupils

Harm Reduction
Policies, programs and/or practices aimed at reducing harm associated with an activity that people are unwilling or unable to stop vs. the prevention of the activity itself.
Harm Reduction in the Opioid Crisis:

Examples include:

- Safe Injection Sites
- Methadone Treatment Program
- Party Safe
- Take Home Naloxone Program

Naloxone

A drug that can temporarily reverse an opioid overdose, so long as it is given right away and followed up by emergency medical care.

The Take Home Naloxone Program

- A Government of Alberta funded program which allows free access to naloxone overdose kits along with appropriate training for their use
- Targeted at people who are at risk for opioid overdose or their friends and family - but anyone can obtain a kit if desired
- Kits are available throughout Alberta
  - Site must be registered with Alberta Health Services
  - Sites include pharmacies, physician offices, addiction and treatment centers, various community and outreach programs
- More information at: drugsafe.ca
How do I get a Take Home Naloxone Kit?

- Visit a registered site
- Get trained (10 minutes)
- Can be anonymous

THN Kit Contents

- 3 vials of Naloxone
- 3 syringes
- Alcohol swabs
- Gloves
- Rescue breathing adapter
- Instructions for use