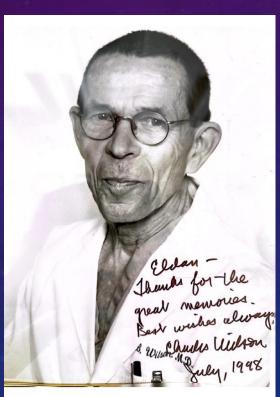


BALANCE IN NEUROSURGERY

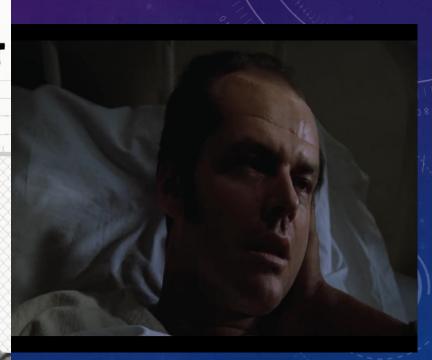
- Charles B. Wilson, MD
- UCSF





 "One Flew Over the Cuckoo's Nest" (1975)



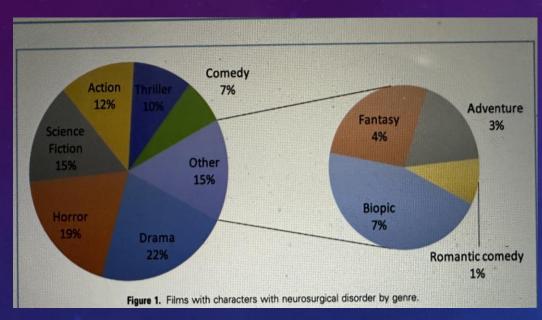


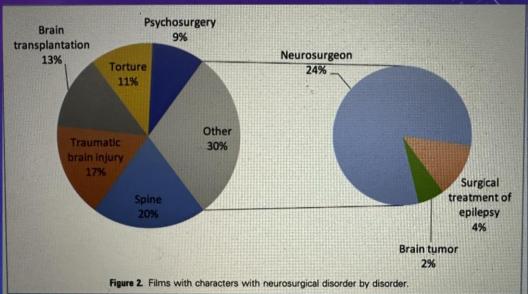


- "The Surgeon in Action: Representations of Neurosurgery in Movies from Freres Lumiere to Today," F. Bernard, et al., *World Neurosurgery* (2018) 119: 66-76.
 - Reviewed 61 Movies relating to neurosurgery or neurosurgeons
 - Most from USA, Britain, Australia, India, Iran
 - Time period 1895-2017
 - 24 movies with neurosurgeons (1950-2017)

- GENRE:
- Drama
- Comedy
- Horror
- Science Fiction
- Action
- Thrillers

- TOPICS:
- Spinal Injuries
- TBI
- Brain Transplantation
- Psychosurgery
- Epilepsy
- Brain tumor





Film	Year	Production Company	Genres Drama, thriller	
Crisis ³	1950	Metro-Goldwyn-Mayer		
The Colossus of New York ⁵	1958	Paramount Pictures	Horror, science fiction	
Suddenly, Last Summer ⁶	1959	Horizon Pictures, Columbia Pictures	Drama	
The Brain That Wouldn't Die ⁷	1962	American International Pictures	Horror, science fiction	
Candy ⁸	1968	ABC Pictures	Adventure, comedy, fantasy	
Frankenstein Must Be Destroyed9	1969	Hammer Film Production	Horror, science fiction	
Happy Birthday to Me ¹⁰	1981	Columbia Pictures, Canadian Film, Development Corporation, Famous Players	Slasher	
The Man with Two Brains ¹¹	1983	Warner Bros	Comedy	
The Adventures of Buckaroo Banzai Across the 8th Dimension ¹²	1984	Sherwood Productions	Adventure, comedy, romance science fiction	
The Unbearable Lightness of Being ¹³	1988	The Saul Zaentz Company, Orion Pictures	Drama, romance	
Hannibal ¹⁴	2001	United International Pictures	Thriller	
Frida ¹⁵	2002	Handprint Entertainment, Miramax, Lionsgate Films, Ventanarosa	Biopic	
Facing the Truth ¹⁶	2003	Public Affair Television	Drama	
Who killed Bamby? ¹⁷	2003	Canal +	Thriller, drama	
Saw III ¹⁸	2004	Lions Gate Entertainment	Horror, thriller	
The English Surgeon ¹⁹	2007	Bungalow Town Production	Documentary	
As Gifted Hands: The Ben Carson Story ²⁰	2009	Sony Pictures Television	Biopic	
Shutter Island ²¹	2010	Phoenix Pictures	Thriller .	
Sucker Punch ²²	2011	Legendary Pictures, Cruel and Unusual Films	Fantasy, action, thriller	
50/50 ²³	2011	Mandate Pictures, Point Grey	Comedy, drama, romance	
Declaration of War ²⁴	2011	Wild Bunch Distribution	Drama	
Avant l'Hiver ²⁵	2013	Les films du 24	Drama	
Doctor Strange ²⁶	2016	Marvel Studios	Action, adventure, fantasy, science fiction	
Get Out ⁴	2017	Blumhouse Productions, QC entertainment Production, Monkeypaw Production, Dentsu	Horror	

Film	Role	Box Office Takings	Production Country	Accolades
Crisis ³	First	\$1,616,455	United States	0
The Colossus of New York ⁵	First, second	NA	United States	0
Suddenly, Last Summer ⁵	Figurant	\$13,000,000	United States	4 wins (Golden Globes, Bambi Awards, David di Donatello Award, Laurel Award, National Board of Review) and 7 nominations
The Brain That Wouldn't Die ⁷	First	NA	United States	0
Candy ⁸		\$16,408,286	United States	1 nomination
Frankenstein Must Be Destroyed ⁹	Second	NA	United Kingdom	1 nomination (Academy of Science Fiction, Fantasy & Horror Films)
Happy Birthday to Me ¹⁰	First	\$10,609,514	Canada	3 nominations
The Man with Two Brains ¹¹	First	\$10,353,438	United States	0
The Adventures of Buckaroo Banzai Across the 8th Dimension 12	First	\$6,300,000	United States	0 win, 5 nominations
The Unbearable Lightness of Being ¹³	First	\$10,010,000	United States	1 win (BAFTA) and 4 Nominations (2 Golden Globes, 2 Oscars)
Hannibal ¹⁴	Second	\$351,600,000	United States	9 wins and 9 nominations
Frida ¹⁵	First	- \$25,885,000	United States	17 wins (2 Oscars, Golden Globes, BAFTA Awards, AFI Awards) and 46 nominations
Facing the Truth ¹⁶	First	NA	Denmark	1 win (Robert Awards) and 2 nominations
Who Killed Bamby? ¹⁷	Second	\$1,167,425	France	4 nominations (Cannes Film festival, Cesar Awards)
Saw III ¹⁸	Figurant	\$80,238,724	United States	1 win (BMI Film Award) and 5 nominations
The English Surgeon ¹⁹	First	£350,000	United Kingdom	1 win (News and Documentary Emmy Awards) and 4 nominations
As Gifted Hands: The Ben Carson Story ²⁰	First	NA	United States	0
Shutter Island ²¹	Figurant	\$250,804,195	United States	1 win (National Board of Review Award) and 7 nominations
Sucker Punch ²²	First	\$89,800,000	United States	1 win (IGN Summer Movie Awards) and 10 nominations
50/50 ²³	First	\$41,100,000	United States	12 wins, 28 nominations
Declaration of War ²⁴	Figurant	\$46,500,000	France	8 wins (Hong Kong International Film Festival) and 8 nominations
Avant l'Hiver ²⁵	First	\$2,600,000	France	0
Doctor Strange ²⁶	First	\$677,700,000	United States	18 wins and 65 nominations
Get Out ⁴	Figurant	\$254,100,000	United States	50 wins (AFI Awards, African-American Films Critics Association, MTV Movie Awards) and 110 nominations

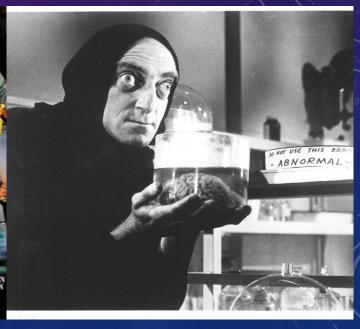
- Brain tumor
 - First Man, So Close So Far
- Brain Transplantation
 - The Man with Two Brains
 - Young Frankenstein
 - Get Out
- Spinal Surgery
 - Million Dollar Baby
 - Dr. Strange
- Psychosurgery
 - One Flew Over the Cuckoo's Nest
 - Shutter Island

- Deep Brain Stimulation
 - Total Recall
 - The Manchurian Candidate
- TBI
 - 50 First dates
 - The Bourne Identity
 - Concussion
- Epilepsy
 - Memento
 - The Terminal Man

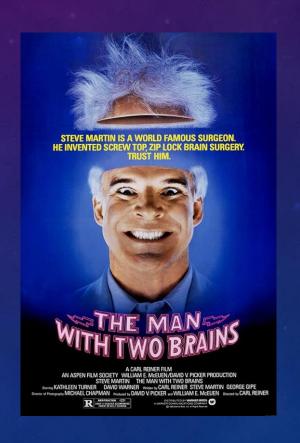
- "Frankenstein" series (1957-74)
 - Obsessed with creating life
 - Deranged and Insane
 - Peter Cushing main actor
- "The Colossus of New York" (1958)
- "The Brain That Wouldn't Die " (1962)

- "Young Frankenstein" (1974)
 - Gene Wilder and Marty Feldman
 - Brilliant scientist
 - Brain transplantation possible reality as renal and heart transplants were reality





- "The Man with Two Brains" (1983)
 - Steve Martin



















- "The Adventures of Buckaroo Banzai Across the 8th Dimension" (1984)
 - Rock Star
 - Musician
 - Great Adventurer





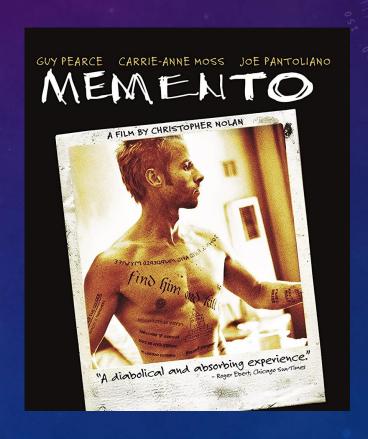
- "The Unbearable Lightness of Being" (1988)
 - Daniel Day-Lewis
 - Successful Neurosurgeon in communist Czechoslovakia
 - Intellectual
 - Politically invested



- "Total Recall" (1990)
 - Implant removed trans-nasally



- "Memento" (2000)
 - Amnesia is main topic of C Nolan's film but based on epilepsy. It was inspired by the story of the most famous epilepsy patient in the world. Henry Gustav Molaison (2/26/1926 -12/2/2008), known as H.M., presented post operative memory disorder after bilateral medial temporal lobectomy to cure his epilepsy.



- "Manchurian Candidate" (2004)
 - Denzel Washington, Liev Schreiber
 - Implant placed
 - ECT scene

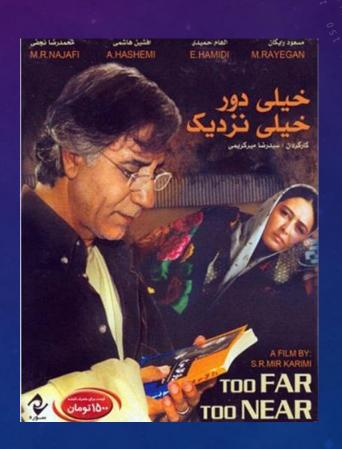




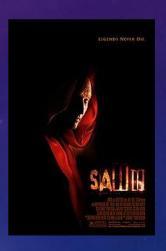




- "So Close So Far" (2005)
 - Self-centered neurosurgeon reunites with his son diagnosed with a medulloblastoma and they eventually save each other.



- "Saw III" (2006)
 - Woman neurosurgeon performs craniotomy to alleviate increased intracranial pressure







• "Spectre" (2015)





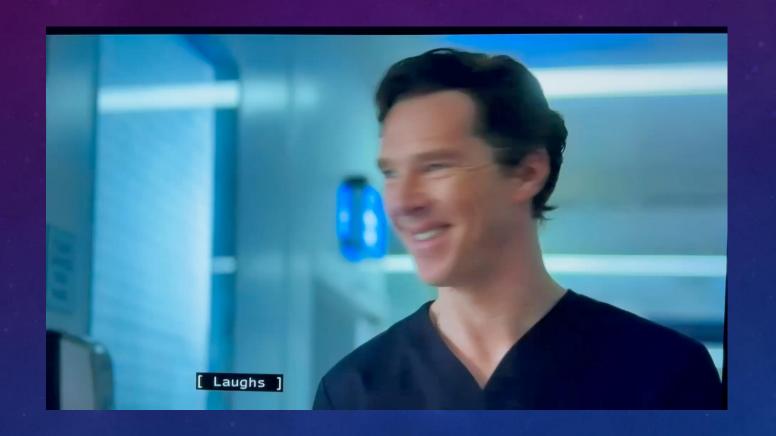




- "Dr. Strange" (2016)
 - Wealthy, Talented and Arrogant Neurosurgeon in NYC
 - Marvel Superhero
 - Inaccurate depiction of neurologic condition and surgical technique and outcome

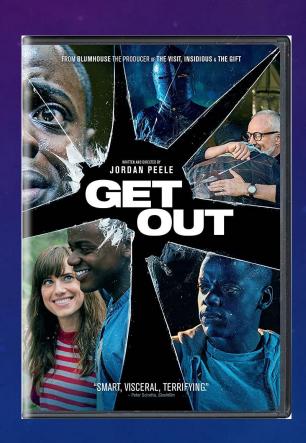








- "Get Out" (2017)
 - Girlfriend's father is a neurosurgeon
 - Brain transplantation



NEUROSURGERY AND FILM





- ER (1994-2009)
- Grey's Anatomy (2005)
- Lenox Hill (2020)
- Dr. Death (2021)

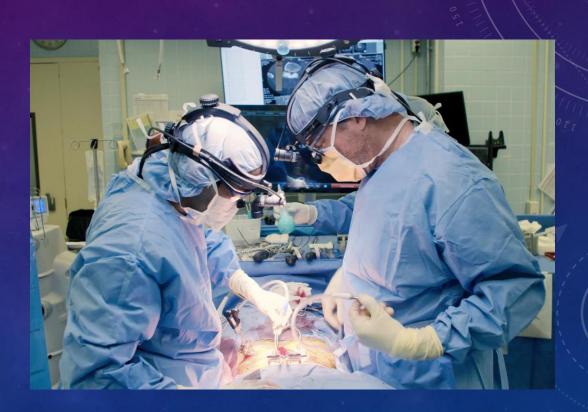
• Dr. Death



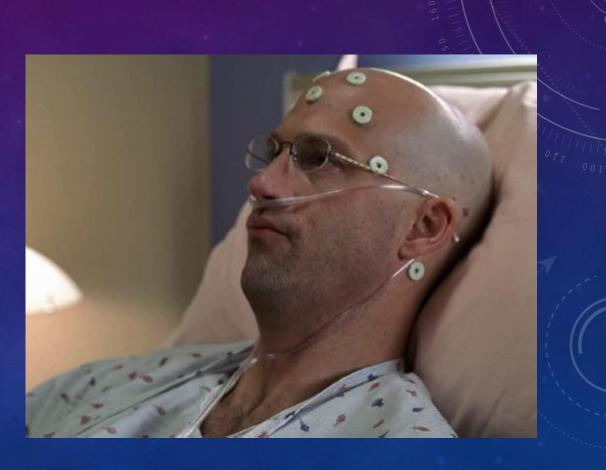




• Lenox Hill



• ER



Grey's Anatomy



• Dr. McDreamy



DR. MCDREAMY







NEUROSURGERY AND FILM

- Neurosurgery and Neurosurgeons depicted accurately in film?
- One could argue that since film is art and entertainment it does not need to be bound by the rigors of being scientifically correct. On the other hand, in film that is not fantasy and trying to depict the true nature of our field, it is best to be at least somewhat accurate.

NEUROSURGERY AND FILM

- PERCEPTION
- Neurosurgeons generally are well-respected and have a strong bond with their patients
- Most movies give inaccurate images of neurosurgery and neurosurgeons
- Improved accuracy in description of neurosurgery and neurosurgeons has improved with time

BALANCE IN NEUROSURGERY

- Neurosurgery/Medical Field
 - Wonderful Career
 - Fortunate
 - Grateful

Dr. Eichbaum -I just wanted to reach out to let you know how I'm doing _ I can now bend down + touch the floor, bend backwards, rotate side to side, stand on my tip toes, and balance on one foot for more than a few seconds. Today I did an xrace for on Salen and iff the handicap spot for some one who many need its more than me. Me being your patient many but you being my doctor sure changed mine. March is not an easy mouth as its when I lost my dad - but in an attempt to mouse it positive; I wanted to let you know I'm thankful for an the schooling and late nights and Missed dates you have endured to become the skilled neuro-surgeon that fixed this RAI- pro. not your best fatig