Better Living Through Chemistry: Taping Into Our Inner Pharmacies to Restore Life Balance

Marjorie A. King, PhD, ATC, PT
Alternative Medicine
Ayurvedic Medicine
India
Shifting Awareness

1 minute pause
Understanding the Chemistry of Stress
Three Stages of Stress Effects

- Immediate
- Intermediate
  - Minutes to Hours
- Prolonged
  - Days to weeks
Immediate: Fight or Flight
Nervous System Response

![Diagram of the nervous system](http://www.quitdoc.com/images/autonomic.jpg)
Intermediate: Pre-ganglionic nerves to adrenal medulla

Effects:
Minutes to Hours
Prolonged: Neuroendocrine

Effect: Days to Weeks

http://www.cushings-help.com/the_body.htm
Get “sick” *AFTER* the stressful event

- Neuro-endocrine system (thyroxine)
Response & Results

- Singular Short Term Exposure
- Multiple Exposures
  - some gaps to re-establish Homeostasis
- *Constant Exposures* with no gaps to find any balance at all
Identifying Stressors in Your Life

List ALL
State of the State

Breathing Check:
60 seconds
How to Chemically Rebalance

Tapping into the Para-Sympathetic System
Shifting the Continuum to Balance

The Results Continuum
- Relaxation Response
- Flight / Fight

Super Performance
- ‘Normal’
- Survival Struggle

PHYSICAL CHARACTERISTICS
- Reduced heart rate
- Lower blood pressure
- Relaxed muscles
- Increased brain oxygen
- Increased heart rate
- Increase in blood sugar
- Blood to peripherals
- Rapid breathing

EFFECTS
- Creativity
- Low stress
- Receptivity
- Learning
- Poor communication
- High stress
- Aggression
- Poor focus / retention
Tools

Low Cost ~ No Cost

Time & Commitment
Sight
Vision and the Nervous System

http://www.bigshotcamera.org/images/learn/Section04_Figure04_AnatomyOfEye.jpg
Be sure to view *something* that is pleasurable some part of each day

- Framed pictures or Art
- Electronic Photo-Frame
- Walk in the park
- Sit by a pond or stream
- Color choices
- Visualization
- Avoid Clutter
Smells
Smell and the Nervous System

Instincts, Drives, Emotions

- Mediate the effects of moods on external behavior
- Influence internal physiology of the body
- Associations of feelings with sensations (smell, sight and formation of memories)
Smells

- Nature
  - Take a walk outside

- Essential Oils
  - Health food store

- Incense
  - Health food store

- Candles*
  - wax
  - wicks

- Stimulating
  - Peppermint
  - Cinnamon

- Soothing
  - Lavender
  - Sandlewood
Aromatherapy

- Websites:
    - National Association of Hollistic Aromatherapy Site
    - Good general info/background info on Aromatherapy
    - Links to Books and Products
  - [http://www.aworldofaromatherapy.com/](http://www.aworldofaromatherapy.com/)
    - Neat site that actually shows different aromatherapy for different diseases/illneses which oils to use and how to use it
  - [http://www.iowaahperd.org/journal/simpson.html](http://www.iowaahperd.org/journal/simpson.html)
    - Aromatherapy with athletic performance.
Sound
Neural Connection

http://earsinus.com/new/images/pictures_illustrations/earanatomy.jpg
Sounds

- Nature
- Music
- Laughter
- Singing
- Musical Instrument
Vibration & the Effect on the Body

Increasing muscular tone & recruitment
Music: Vibrational Quality

Vibration: Healing

www.Chopra.com

http://store.chopra.com/showitems.asp?deptcode1=556
Drums
  ◦ grounding
Flutes
  ◦ light and airy
Fiddles (instead of the afternoon coffee…)
  ◦ energizing
Harp
  ◦ relaxing
Chimes
  ◦ relaxing
Nature Sounds
  ◦ Relaxing
Chanting
Tibetan Singing Bowls ~ Healing

http://www.theglobalhealer.com/Antique%20Tibetan%20Singing%20Bowls.jpg
www.Pandora.com

✓ Free
✓ On line
Tastes
Taste and the Nervous System
Taste and the Nervous System

http://embryology.med.unsw.edu.au/Notes/images/senses/nature05401-f1.2.jpg
Taste Input to the Nervous System

To Brain…..
Foods that Taste Good...

AND........Are Good For You!!!
Eliminate Foods that are Known Culprits...

Substitute ONE known positive replacement
Coffee

- Add decaff
- Drink equal number of cups of water
- Reduce sugar
- Reduce creams.....
Nutrition & Hydration
The average urine output for adults is about 1.5 liters (6.3 cups) a day. You lose close to an additional liter (about 4 cups) of water a day through breathing, sweating and bowel movements. Food usually accounts for 20 percent of your total fluid intake, so if you consume 2 liters of water or other beverages a day (a little more than 8 cups) along with your normal diet, you will typically replace your lost fluids.
Hydration: 8 ounce system

- Eight 8-ounce glasses of water a day. Another approach to water intake is the
- "8 x 8 rule" — drink eight 8-ounce glasses of water a day (about 1.9 liters). The rule could also be stated, "Drink eight 8-ounce glasses of fluid a day," as all fluids count toward the daily total. Although the approach really isn't supported by scientific evidence, many people use this easy-to-remember rule as a guideline for how much water and other fluids to drink.

http://www.mayoclinic.com/health/water/NU00283
Self-Check

The Urine Color Chart shown here will assess your hydration status (level of dehydration) in extreme environments. To use this chart, match the color of your urine sample to a color on the chart. If the urine sample matches #1, #2, or #3 on the chart, you are well hydrated. If your urine color is #7 or darker, you are dehydrated and should consume fluids.

The scientific validation of this color chart may be found in the International Journal of Sport Nutrition, Volume 4, 1994, pages 265-279, and Volume 8, 1998, pages 345-355. Adapted by permission from Larry Armstrong, 2000, Performing In Extreme Environments, (Champaign, IL: Human Kinetics).

Conscious Eating

Return to Wholeness by David Simon, M.D.
Conscious Eating

1. Eat meals in a pleasant and comfortable environment
   - Chaotic surrounds $\rightarrow$ chaotic digestion

2. Avoid eating when upset
   - Emotional chemicals released do no facilitate digestion

3. Eat when you feel hungry
   - Stop when you are comfortable full

4. Sip warm water with meals
   - Cold decreases digestive enzyme efficiency
Conscious Eating

5. Eat freshly cooked meals
   • The farther away from “fresh”, the less nutritional value

6. Reduce raw foods (illness)
   • Difficult to digest
   • Illness decreases digestive power
   • Freshly prepared vegetable juice

7. Sit quietly after each meal
   • Allow body to process the act of eating

8. Unconscious eating
   • Eating on the run
   • Eating in front of the T.V.
   • Increase consumption of nutritionally empty substances

RTW p. 54, 55
Detoxify and Release the feelings through activity.....

- Breathing
- Work
- Dance
- Swim
- Yoga
- Pound a Pillow
- Throw rocks into ocean/lake
- Yell at God
Touch
Therapeutic Touch
Reflexology

Tapping into the nervous system...
Hand Reflexology

http://inspiromania.files.wordpress.com/2010/06/hand-small1.gif
Oil

The other cleanser
Oils and Self Massage

- Olive Oil
- Sesame Seed Oil
- Grape Seed Oil
- Almond Oil
- Mixtures.....
Other Touch Modalities

- Massage
- Cranio-sacral therapy
- Myofascial Release
- Lymphatic Drainage
- Etc……
Thoughts & Intentions
You are What you Think....
Self Talk
Self Talk

- Take Note of all the comments you make to your self throughout the day
- Identify if they are positive or negative
- Try to identify the “source”
- Be your OWN best Cheerleader!!!!
- NOT you own worst opponent……
Breathing

Essential for Life and Well Being
Types of Breathing

- Cleansing Breath
- Sniffs
  - Breathing Exercises of Alexandra Strelnikova
  - Designed to reduce asthma attacks
  - http://strelnikova.freehostia.com/
- Nostril breathing (R/L)
- Breathing with mantra
- Others............
Web Sites

  - This website offers more of the breathing used with Yoga primarily with Pranayama
  - Gives a list of Yoga Breathing Techniques with Names, How to do it?, and What its good for?

  - Three Exercises with breathing: The Bellows Breath, The 4–7–8, and Breath Counting

- [http://stress.about.com/od/tensiontamers/a/Breathing_Ex.htm](http://stress.about.com/od/tensiontamers/a/Breathing_Ex.htm)
  - Breathing Exercises for Stress Relief
  - Information about Breathing Exercises
  - Links to different breathing: Basic, Deep Breathing, Breathing and Visualizations

- [http://www.yogamovement.com/resources/breathing.html](http://www.yogamovement.com/resources/breathing.html)
  - Goes over the types of breathing: upper –middle –lower
  - Deep Breathing
  - Not a lot of info but concise

- [http://www.yogapranayama.net/](http://www.yogapranayama.net/)
  - Good site that primarily focuses on Pranayama
  - Lots of good cues and tips and breathing exercises

  - Step by step of Pranayama
  - Deep Breathing, Nostril Breathing
  - Not a lot of information mainly technique step by step

  - Tips for athletes on breathing and relaxation techniques
  - Mental preparation material
Sleep
Small endocrine gland that hangs down from the base of the brain receives signals from other areas of the brain and from the eyes as well manufactures a hormone called melatonin which it secretes into the blood stream to effect other areas in the body. Melatonin is secreted when, according to our internal biological clock, it is time for us to sleep.
Biological Clock & Sleep

- Biological clock
- Environment
- Stimulations internes
- Acétylcholine
- Noradrénaline
- Sérotonine
- Glutamate
- Histamine
- GABA
- Éveil
- Falling asleep
- non-REM sleep
- REM sleep

http://thebrain.mcgill.ca/flash/a/a_11/a_11_cl/a_11_cl_cyc/a_11_cl_cyc_1b.jpg
Pineal Gland
Quiet Time
Quiet Time: Activate Para-Sympathetic System

- Walk a document across campus instead of campus mail
- Walk to someone’s office to ask a question instead of phone calling
- Time spent in Line.............breathing vs. getting anxious
- Step outside
- 5 minutes in car before heading into house
Watching T.V. or Movies

- Darken room
- Set on Mute
- Close Eyes
- Focus attention on the amount of “flicker” there is during the program and the commercials

Conclusion: watching T.V. is NOT relaxing to your nervous system!!!
Guided Meditations
Guided Meditation

- Listening to pre-set program of words or music
- Easier than trying to sit quietly with no thoughts
- Great way to get started on meditation
- Over 15 FREE, Downloadable guided meditations
Meditation

PRACTICE.........
Goal: 30 minutes

First Thing in the Morning: clears space for that day’s intentions

At some point towards the end of the day: to close out the day
How to Get Started

- Quiet Time
- Guided Meditation
- Instructions
  - [http://web-us.com/meditation/alternateguidemeditate.html](http://web-us.com/meditation/alternateguidemeditate.html)
- Videos
  - [http://www.google.com/search?q=how+to+start+to+meditate&hl=en&prmd=v&source=univ&tbs=vid:1&tbo=u&ei=IunyTli2N8H98AblotnLDA&sa=X&oi=video_result_group&ct=title&e&resnum=8&ved=0CDoQqwQwBw]
Be Present
Every Minute of Each Day is a present to be unwrapped
Multi-tasking

Perhaps it IS NOT a skill to be proud of……
Laughter
Infectious.....Tension Release...
“According to my research, laughter is the best medicine, giggling is good for mild infections, chuckling works for minor cuts and bruises, and snickering only makes things worse.”
“Laughter is the best medicine, but try this if you can’t think of anything funny.”

© Original Artist
“Laughter is the best medicine, but your insurance only covers chuckles, snickers and giggles.”
## BENEFITS of LAUGHTER

<table>
<thead>
<tr>
<th>Physical Health Benefits</th>
<th>Mental Health Benefits</th>
<th>Social Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boosts immunity</td>
<td>Adds joy and zest to life</td>
<td>Strengthens relationships</td>
</tr>
<tr>
<td>Lowers stress hormones</td>
<td>Eases anxiety and fear</td>
<td>Attracts others to us</td>
</tr>
<tr>
<td>Decreases pain</td>
<td>Relieves stress</td>
<td>Enhances teamwork</td>
</tr>
<tr>
<td>Relaxes your muscles</td>
<td>Improves mood</td>
<td>Helps defuse conflict</td>
</tr>
<tr>
<td>Prevents heart disease</td>
<td>Enhances resilience</td>
<td>Promotes group bonding</td>
</tr>
</tbody>
</table>

http://helpguide.org/life/humor_laughter_health.htm
Balance EACH Day
Working really hard for several days....

Expectations of a break that never comes....
Find Balance *within* Each Day

Rather than trying to balance across a week or a month.....
More Yum than Yuck

Daily Assignment
Finding a Balance
Having a “Bad” Day
A Day Worth Living!!
Index Cards

The High Tech method to create awareness
To follow what you do for a day.....

- Write down everything you do as you go along in a day.....on an index card
- Make a quit notation of time of day on the card
- You may use different colored index cards for different events
  - Work
  - Kids
  - Chores (grocery shopping, car pooling, etc)
  - Eating, sleeping,
  - Etc

Just keep tossing them in to a basket or zip lock bag as the day goes along
Index Card......Assessment

- Find some quiet time 🧘‍♂️
- Total up the number of index cards
- Sort index cards by color
- Now you can concretely review your day
- And identify what % of the day you spent doing what
- Then.........rework the day by figuring out what needs to go! What needs to be reworked..........
Write down everything you need to do the next day on a SINGLE index card (3 x 5)....no cheating and using a 4 x 6!

Begin to realize........as the card gets overfilled – how overfilled your day(s) are

Sort through what you can do about it.....
Bank The Quality of Your Time
Keeping Track of Yum vs Yuck

- Start with a pile of Pennies
- Toss a penny in the bank (a cup) every time you have a YUM moment in the day…..
- Take a penny out for every YUCK moment
- Check the bank mid-day…..How are you doing?
  - Do you need to step out and take a break –
    - “Get some air”…..
    - Breathe……..
    - Touch base with Nature….
    - Call a friend to make you laugh……
- Take stock of your entire day…..
- More YUM than YUCK???????
More YUM than YUCK.....
Stressor List & Tool List

Break–out Session
Suggestions

Shared from the participants
Summary
A Little Bit Often....As Often as Possible™

A single drop expands in space and time........
Take a Little Bit of Retirement Every Day
It is just that Simple......

It just isn’t easy

But it is worth trying....
“Hold it, Coach...Are we the hugs or the kisses?”