Complementary and Integrative Medicine
What is Cowhage/Mucuna Pruriens?

It is a wild bean-like plant that grows in tropical climates. The bean, seed, and pod are all used to make medicine. It was first used by a Hindu system of medicine to treat Parkinson's disease. Allopathic medicine currently uses it for the same thing. It contains a chemical called L-Dopa which turns into dopamine in the brain. This bean is also used to treat arthritis, anxiety, low prolactin levels, and to induce vomiting, and snake bite. Unfortunately, in it’s natural state only a very small portion of it reaches the brain due to the human digestive system, unless it is mixed with other chemicals.
What Are The Side Effects of Cowhage/Mucuna Pruriens?

- **The most common side effects:**
  - nausea, bloating, vomiting, insomnia, and abnormal body movements

- **Less common side effects:**
  - “...headache, pounding heartbeat, and symptoms of psychosis including confusion, agitation, hallucinations, and delusions”.

- **Contraindications:**
  - pregnancy/breast feeding, heart or blood vessel disease, low blood sugar, diabetes, diseases of the liver, melanoma, ulcers of the stomach, mental illness, and upcoming surgery

- **Negative interactions with medications:**
  - MAOIs, blood pressure medication, diabetes medication, antipsychotics, tricyclics, anesthesia
Cowhage/Mucuna Pruriens
How Many Types of Dopamine Are There?

There are 5 types of Dopamine (D1, D2, D3, D4, D5) in the human brain. Each one has a very different function. Each one or combination may be related to different disorders.

Beaulieu, J.-M. et al. (February 8, 2011). The Physiology, Signaling, and Pharmacology of Dopamine Receptors. Pharmacological Reviews. DOI: 10.1124/pr.110.002642.
Subtypes of Dopamine Genes Related to AD/HD

1. Dopamine Transporter Gene: DAT1
2. Dopamine Reuptake Gene: DRD4-7R

Dopamine Gene Related to Parkinson’s Disease

Japanese researchers found the DJ-1 subtype gene is related to the amount of dopamine contained the substantia nigra of the brain.


The substantia nigra is related to motor control, emotions and learning.
Pictures of the Substantia Nigra
Mucuna Pruriens and Parkinson’s Disease

Scientist found that Mucuna Pruriens can be useful in treating Parkinson's Disease and can be well tolerated as well as offer a natural alternative to pharmaceuticals.

Lewy Body Dementia and AD/HD

Argentine scientists discovered that a group of adults with Lewy Body Dementia had a high likelihood of having AD/HD previously. However, they could not say one caused the other.

Russell Barkley & CAM Treatments

“We should all eat dung, because a thousand flies can’t be wrong!”

--Russell Barkley, PhD

CAM Therapies

“Today’s complementary and alternative medicine is tomorrow’s mainstream, but first it must meet with rigorous scientific evaluation.”

Alan Leshner, PhD, National Advisory Council for Complementary and Alternative Medicine and CEO of the American Association for the Advancement of Science (p. 44)

Who Uses CAM Therapies?

- In 2007, 38.3% of adults and 11.8% of children used CAM therapies.
- Adults age 50 to 59 were the highest users of CAM therapies with 44.1%.
- Native Americans/Native Alaskans are the highest users by ethnic group to use CAM therapies at 50.3%.
- 4.5% of adults treated depression/anxiety with CAM therapies in 2002.
- 2.5% of children in 2007 received CAM therapies to treat ADHD.

How Many People Use Alternative Therapies?

- 56% of those with anxiety use alternative treatments
- 53% with Depression
- 16% of hospital offer CAM therapies
- Highest rates used by those with serious and debilitating conditions

Why People Use CAM Therapies

- Addiction fears
- Religious convictions
- Fears that putting their child on medication would preclude them from occupations when they grow up (i.e., military, airline pilot, etc.)
- Fears about medications in general because of recent problems with medications that treat other disorders
Why People Use CAM Therapies

- CAM practitioners use a holistic approach and spend more time with the patient
- CAM methods can be viewed as preventive
- CAM methodologies tend to be more customized for the patient
- CAM can be far less costly
There is More to life than Symptom Reduction

- Can you meet your goals?
- Can you fulfill your roles?
- Do you have a good quality of life?
- Are you happy?
- Are you anxious and/or depressed?
- Etc.


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www.drkevintblake.com
“Evidence-based practice is the integration of best research evidence with clinical expertise and patient values.”

Things to Watch for When Reading A Study

When to question if a treatment is legitimate:

➢ When no research in peer-reviewed journal is available;

➢ When they say, “traditional medicine, etc.” refuses to accept what they are saying;

➢ If most professionals would not use the method

➢ when the person pushing the treatment says, “…prove me wrong…” (p.4).

What Does a Good Research Study Have?

- Random assignment into groups
- A control group where everyone in the group gets no treatment and/or a placebo, or “sham” treatment
- The research subjects and researcher should be “blind” to which treatment subjects are receiving
- A large group of subjects: 1 is no good, 1000 is much better
- Have the results been replicated?
- Who paid for the study?
References


Guidelines for Evaluating Treatment Research

“Guidelines should be based on broad careful consideration of the relevant empirical literature...Recommendations on specific interventions should take into consideration the level of methodological rigor and clinical sophistication of the research supporting the intervention...The evaluation of treatment efficacy places greatest emphasis on the evidence derived from sophisticated empirical methodologies, including quasi experiments and randomized controlled experiments or their logical equivalents.”

(1053-1054)

National Center for Complimentary and Integrative Health (NCCIH)

- National Center for Complimentary and Integrative Health:
  - www.nccih.nih.gov
  - NCCIH Clearinghouse: 888-644-6226

Some findings:
- St. John’s Wort (Hypericum Perforatum) is no better than placebo with Major Depression. Now being studied with “Minor” Depression—There is some research that St. John’s Wort can help with mild to moderate depression.
- More research is needed!


Helpful Resources

Helpful Government CAM Websites

- FDA Center for Food Safety and Applied Nutrition: Dietary Supplements:
  http://www.fda.gov/food/dietarysupplements/default.htm
- NIH Office of Dietary Supplements (ODS):
  http://ods.od.nih.gov/
- FDA Food and Drug Scams Website:
  www.fda.gov/healthfraud
- FDA Consumer Updates:
  www.fda.gov/ForConsumers/ConsumerUpdates/default.htm
Other Helpful CAM Websites

- Cochrane Collaboration: [www.cochrane.org](http://www.cochrane.org)
- Quackwatch: [www.quackwatch.com](http://www.quackwatch.com)
- Children (and Adults) with Attention Deficit Disorder: [www.chadd.org](http://www.chadd.org)
- My ADHD: [www.myADHD.com](http://www.myADHD.com)
- National Adult Attention Disorder Association (ADDA): [www.add.org](http://www.add.org)
- International Dyslexia Association website: [www.interdys.org](http://www.interdys.org)
- Learning Disabilities Association of America: [www.ldanatl.org](http://www.ldanatl.org)
- National Center for Learning Disabilities: [www.ld.org](http://www.ld.org)
- LD OnLine: [www.ldonline.org](http://www.ldonline.org)
- Anxiety and Depression Association of America: [www.adaa.org](http://www.adaa.org)