Change Your Brain, Change Your Life

The Breakthrough Program for Conquering Anxiety, Depression, Obsessiveness, Anger, and Impulsiveness

Daniel G Amen

Three Rivers Press New York

Appendix

Medication Notes

1. Stimulants

In my opinion these are the first-line medications for treating ADD, especially ADHD and ADD without hyperactivity, when ADD is the primary problem. They are also used to treat narcolepsy, help in some postconcussive syndromes, and are used in resistant depression. Our current understanding of these medications is that they increase dopamine output from the basal ganglia and increase activity in the prefrontal cortex and temporal lobes.

- Contrary to popular belief, these are considered very safe medications when taken as prescribed under a doctor's supervision.
- The PDR lists 60 milligrams as the top dosage for Ritalin and 40 milligrams as the top dosage for Adderall, Dexedrine, and Desoxyn. Many clinicians, like myself, feel the range of effectiveness may be much higher for some individuals.
- With Cylert it is very important to monitor liver function tests, as 2 to 3 percent of people taking this medication may develop chemical hepatitis.
- Do not take stimulants with citrus juices (orange, grapefruit, lemon). They lessen the effect.
- Decrease caffeine intake when taking a stimulant. Caffeine and these stimulants together tend to overstimulate the nervous system.
- The common side effects of stimulants tend to be decreased appetite, sleep problems (if taken too late in the day), and transient headaches or stomachaches.

Generic name	Brand Name	Milligrams a day / available strengths	Times a day	Notes
amphetamine salt combination	Adderall (sustained-release)	5-80 / 5, 10, 20, 30	1-2	my first stimulant of choice for teens and adults
methylphenidate	Ritalin	5-120 / 5, 10, 20	2-4	watch rebound when wears off
methylphenidate sustained-release	Ritalin-SR	10-120 / 20	1-2	may be erratic in effect
dextroamphetamine	Dexedrine, Dextrostat	5-90 / 5, (10 Dextrostat only)	2-4	watch rebound when wears off
dextroamphetamine slow-release caps	Dexedrine Spansules (sustained- release)	5-80 / 5, 10, 15	1-2	-
methamphetamine slow-release tabs	Desoxyn Gradumets (sustained release)	5-80 / 5, 10, 15	1-2	-
pemoline	Cylert	18.75-112.5, up to 150 for adults / 18.75, 37.5, 75	1-2	routine liver screening essential.

2. Tricyclic Antidepressants (TCAs) and Bupropion (Wellbutrin)

These medications are effective antidepressants. They tend to decrease overactive limbic activity. These medications increase various neurotransmitters, including norepinephrine (imipramine, desipramine, doxepin), dopamine (bupropion), serotonin (clomipramine), or a combination of these (amitriptyline, nortriptyline). They tend to be more stimulating than the others listed. Many of these are now considered second-line medications for depression because they tend to have more side effects than the SSRIs (next section). Yet some of them also have significant advantages. When depression is mixed with anxiety, imipramine and desipramine may be a better choice. When depression is mixed with ADD, desipramine, imipramine, bupropion, and venlafaxine (see next section) seem to be the most effective. Bed-wetting and depression or anxiety may best respond to imipramine. A skilled psychopharmacologist can help you sort through these medications.

Generic name	Brand Name	Milligrams a day / available strengths	Times a day	Notes
desipramine (TCA)	Norpramin	10-300 / 10, 25, 50, 75, 100, 150	1-2	stimulating; often helps ADD in adults, not currently used in children
imipramine (TCA)	Tofranil	10-300 / 10, 25, 50, 75, 100, 150	1-2	also used for anxiety, panic disorder, bed-wetting
bupropion	Wellbutrin	50-450 / 75, 100 250, 500	1-3	never > 150 mg a dose; do not use if prone to seizures
bupropion sustained- release	Wellbutrin SR	150-450 / 50, 100, 150	1-3	never > 150 mg a dose; do not use if prone to seizures
amitriptyline (TCA)	Elavil	10-300 / 10, 25, 50, 75, 100, 150	1-2	often used to help with sleep problems, headaches, fibromyalgia, and pain syndromes
nortriptyline (TCA)	Pamelor	10-150 / 10, 25, 50, 75	1-2	often used to help with sleep problems, headaches, fibromyalgia, and pain syndromes
doxepin (TCA)	Sinequan	10-300 / 10, 25, 50, 75, 100, 150	1-2	often used to help with sleep problems
clomipramine (TCA)	Anafranil	10-200 for a child, 10-300 for an adult / 25, 50, 75	1-2	also used for OCD.

- These medications need to be monitored more closely than stimulants, especially their effect on hear function.
- Many adults respond to very low doses of these medications for ADD symptoms. This is important because the low doses often produce far fewer side effects than the higher "antidepressant" doses.
 - Unlike stimulants, these may take several weeks to a month to become effective.
- When Wellbutrin was first released in the USA, a number of people developed seizures while taking it. It was pulled from the market in the early 1980s. The manufacturer

figured out the dosage pattern was wrong, and the FDA allowed it to release it with a different dosage regimen. Do not take more than 150 milligrams at a time.

- These medications are usually not first-line treatments for ADD. I use these medications to treat depression, anxiety disorders, bed-wetting, and the limbic subtype of ADD, often in conjunction with one of the stimulants.

3. Antiobsessive or "Antistuck" Medications

Generic name	Brand Name	Milligrams a day / available strengths	Times a day	Notes
fluoxetine (SSRI)	Prozac	10-80 / 10, 20	1	long acting; do not use if temporal lobe symptoms are present
clomipramine (TCA & SSRI)	Anafranil	10-200 in children, 10-300 in adults / 25, 50, 75	1-2	tends to have more side effects, so not used as a first-line drug
sertraline (SSRI)	Zoloft	25-200 / 25, 50, 100	1	often my first choice of these meds
paroxetine (SSRI)	Paxil	10-60 / 10, 20, 30, 40	1	-
fluvoxamine (SSRI)	Luvox	25-200 / 50, 100	1	-
venflaxine	Effexor	37.5-300 / 18.75, 25, 37.5, 50, 75, 100	2-3	best of these meds for ADD symptoms
mirtazapine	Remeron	15-60 / 15, 30	1	smaller doses cause drowsiness
nefazodone	Serzone	100-600 mg / 50, 100, 150, 200, 250	2	good for depression and anxiety.

These medications increase the availability of serotonin in the brain, and they are often helpful to calm down cingulate hyperactivity. They are typically marketed as antidepressants. They also tend to calm down limbic hyperactivity. Except for Effexor, these medications are not first-line treatments for ADD and, in fact, they may make ADD worse. These serotonin-enhancing medications are also used to treat eating disorders, obsessive-compulsive disorder,

oppositional defiant disorder, PMS (over-focused type), excessive worrying, temper problems associated with things not going a person's way, and other cingulate problems listed in this book.

5. Blood Pressure Medications

- Contrary to the negative media attention, Prozac is generally a very safe medication. In our experience, however, people who have temporal lobe problems may experience an intensification of angry and aggressive feelings on Prozac or other serotonin-enhancing medications. Therefore, we are careful to screen for these before placing someone on these medications. If you have side effects on any medication, it is important to contact your doctor and discuss them.
- Unlike stimulants, these may take several weeks to several months in order to be effective and even three to four months to become optimally effective.
- The most common side effect of these medications is sexual dysfunction. Sometimes adding gingko biloba or bupropion counteracts these problems.

4. Anticonvulsant or Antiseizure Medications

Generic name	Brand Name	Milligrams a day / available strengths	Times a day	Notes
carbamazepine	Tegretol	100-200 / 100, 200	2	essential to monitor white blood cell count and blood levels
valproic acid	Depakene	125-3.000 / 250	1-2	monitor liver function and blood levels
divalproex	Depakote	125-3.000 / 125, 250, 500	1-2	monitor liver function and blood levels
gabapentin	Neurontin	100-4.000 / 100, 300, 400	1-2	tends to have the smallest number of side effects
lamotrigine	Lamictal	25-500 / 25, 100, 150, 200	1-2	start slow, watch for rash
phenytoin	Dilantin	30-300 / 30, 100	1-2	monitor blood levels.

These medications are used to treat temporal lobe dysfunction, seizures, aggression, emotional instability, headaches, resistant depression, and bipolar disorder. They are often very effective in resistant psychiatric conditions where all else has failed.

5. Blood Pressure Medications

The following blood pressure medications have been used to help with tic disorders, hyperactivity, aggressiveness, and impulsivity. They are not usually helpful with the attentional symptoms, and they are often mixed with a stimulant medication when ADD is present.

Generic name	Brand Name	Milligrams a day / available strengths	Times a day	Notes
clonidine	Catapres	0.05-0.6 / 0.1, 0.2, 0.3 tabs and patches	1-2	watch rebound hypertension and sedation
guanfacine	Tenex	1-3 / 1.2	1	-
propranolol	Inderal	10-600 / 10, 20, 40, 60, 80	2-3	helpful with hand tremors as well.

- Clonidine and guanfacine are also used as primary treatments for tic disorders such as Tourette's syndrome.
- When I use clonidine in addition to a stimulant medication, I order a screening EKG. There have been several reports that this combination may cause problems, even though I have found it to be effective and safe.
 - These medications are also used to treat insomnia, which is very common in ADD.

6. Combination Medications

People can have more than one problem or more than one brain system involved in their symptoms. Sometimes one medication seems to be able to treat a number of problems, as mentioned above, and sometimes a combination of medications is needed to obtain full therapeutic benefit.

Here are four common combinations of medications I use in my practice.

- A stimulant plus an antiobsessive antidepressant (such as Adderall plus Effexor) for patients with ADD plus depression, obsessiveness, or severe oppositional behavior. In my clinical experience I have seen many people who are children or grandchildren of alcoholics benefit from this combination. Frequently, this population presents with cingulate (overfocus symptoms) and prefrontal cortex problems (attentional symptoms).

- An anticonvulsant plus an antiobsessive antidepressant (such as Depakote plus Zoloft) for patients with temper problems and excessive worrying or depression.
- A blood pressure medication, plus a stimulant and an antiobsessive antidepressant (such as Catapres, Adderall, plus Effexor) for patients with Tourette's syndrome, ADD, and OCD.
- A tricyclic antidepressant plus a blood pressure medication (such as Tofranil plus Inderal) for patients with depression, anxiety, and hand tremors in social situations.