

## Comparison of ADHD Medications

<b>Psychostimulants - extended release formulations</b>							
<b>Drug<sup>1,2</sup></b>	<b>Brand</b>	<b>Max Dose<sup>4</sup></b> (mg/day)	<b>Initial Dose (mg)</b>	<b>Onset / Peak effect</b> (hours)	<b>DOA<sup>6</sup></b>		
<b>Methylphenidate<sup>7</sup></b>	Ritalin LA & SR, Metadate ER & CD, <sup>5</sup> Methylin ER, Quillivant XR, Daytrana Patch	60	Metadate CD, Quillivant XR: 20 QDay. Ritalin LA: 10-20 Qday	Ritalin-SR: 4-7 h Daytrana patch: ~2 h <sup>3</sup>	8 h		
	Concerta <sup>8</sup>	72	18-36 QAM	1-2 h, C <sub>max</sub> : 6-8 h	12 h		
<b>Dexmethylphenidate</b>	Focalin XR <sup>11</sup>	40	10 Qday	≥0.5; T <sub>max</sub> 1 <sup>st</sup> peak: 1.5h, 2 <sup>nd</sup> 6.5h <sup>9</sup>	12 h		
<b>Dextroamphetamine</b>	Dexedrine ER	40	10 QAM	Onset: 1-1.5 h, T <sub>max</sub> ~8 h	6 - 8 h		
	Vyvanse <sup>12,13</sup> (lisdexamfetamine)	70	30 QAM <sup>13</sup>	T <sub>max</sub> 3.8 to 4.7 h <sup>14</sup>	10 - 14 h		
<b>Mixed amphetamine salts</b>	Adderall XR <sup>10</sup>	30	20 QAM	T <sub>max</sub> 7 h	10 - 12 h		
<b>Non-Stimulants</b>							
<b>Drug<sup>1,2</sup></b>	<b>Brand</b>	<b>Dosing</b>	<b>Formulation</b>	<b>MaxDose</b> (mg/day)	<b>Onset: Peak effect</b>	<b>DOA<sup>6</sup></b>	<b>Crush?</b>
<b>Atomoxetine</b>	Strattera	QDay - BID	N/A	100	1 wk <sup>17</sup>	at least 10 to 12 h <sup>16</sup>	No
<b>Bupropion</b>	Wellbutrin	TID	IR	450	T <sub>max</sub> 2 h	8 h	Yes
	Wellbutrin SR	BID	ER (12 h)	400	T <sub>max</sub> 3 h	12 h	No
	Wellbutrin XL	QDay	ER (24 h)	450	T <sub>max</sub> 5 h	24 h	No
<b>Clonidine</b>	Catapres	QDay-QID	IR	2.4	2 - 4 h	6 - 10 h	Yes
	Catapres-TTS	Q 7 days	Patch	0.6	2-3 days	T <sub>1/2</sub> ~20 h <sup>18</sup>	N/A
<b>Guanfacine</b>	Tenex		IR		T <sub>max</sub> 2.6 h	T <sub>1/2</sub> ~17 h <sup>19</sup>	Yes
	Intuniv	QDay	ER	4	T <sub>max</sub> ~5 h	at least 8 to 12 h	No <sup>20</sup>

**1:** all pregnancy category C except Tenex (category B) **2:** generic available except Daytrana Patch, Quillivant XR, Vyvanse, Strattera, and Intuniv **3:** transdermal: ~2 h (expedited by external heat) **4:** FDA approved max dose **5:** Metadate CD capsules contains IR and ER beads, designed to release 30% of the dose immediately and 70% over an extended period **6:** Duration of Action **7:** ER/SR **8:** osmotic controlled release formulation (OROS), IR overcoat provides an initial dose of methylphenidate within 1 hour. The overcoat covers a trilayer core. The trilayer core is composed of two layers containing the drug and excipients, and one layer of osmotic components. As water from the GI tract enters the core, the osmotic components expand and methylphenidate is released **9:** 1st peak: 1.5 hrs (range: 1-4 hours), 2nd peak: 6.5 hours (range: 4.5-7 hours) **10:** May be taken whole or sprinkled on applesauce, sprinkled applesauce should not be chewed or stored **11:** Caps may be opened & contents sprinkled over a spoonful of applesauce **12:** prodrug of dextroamphetamine; requires hydrolysis in gut for activation; may limit abuse potential if injected or snorted **13:** Swallow capsule whole, do not chew; capsule may be opened and the entire contents dissolved in glass of water **14:** Dextroamphetamine: 3.8 hours (fasting), 4.7 hours (after high-fat meal) **15:** Patients not currently taking methylphenidate **16:** T<sub>1/2</sub>- Atomoxetine: 5 hours (up to 24 h in poor metabolizers); Active metabolites: 4-hydroxyatomoxetine: 6-8 hours; N- desmethylatomoxetine: 6-8 hours (34-40 hours in poor metabolizers) **17:** Tmax 1-2 h, ADHD initial response: 1 week **18:** T<sub>1/2</sub> (after patch removal) ~20 h **19:** T<sub>1/2</sub> ~17 h (range: 10-30 h) **20:** avoid high-fat meals