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List of benzodiazepines

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The below tables contain a list of benzodiazepines that are commonly prescribed, with their basic [pharmacological](#) characteristics such as half-life and equivalent doses to other [benzodiazepines](#) also listed, along with their trade names and primary uses. The [elimination half-life](#) is how long it takes for half of the drug to be eliminated by the body. "Time to peak" refers to when maximum levels of the drug in the blood occur after a given dose. Benzodiazepines generally share the same pharmacological properties, such as [anxiolytic](#), [sedative](#), [hypnotic](#), [skeletal muscle relaxant](#), [amnesic](#) and [anticonvulsant](#) (hypertension in combination with other anti hypertension medications). Variation in potency of certain effects may exist among individual benzodiazepines. Some benzodiazepines produce [active metabolites](#). Active metabolites are produced when a person's body metabolizes the drug into compounds that share a similar pharmacological profile to the parent compound and thus are relevant when calculating how long the pharmacological effects of a drug will last. Long-acting benzodiazepines with long-acting active metabolites such as [diazepam](#) and [chlordiazepoxide](#) are often prescribed for benzodiazepine or alcohol withdrawal or for [anxiety](#) if constant dose levels are required throughout the day. Shorter-acting benzodiazepines are often preferred for [insomnia](#) due to their lesser hangover effect.[\[1\]](#)[\[2\]](#)[\[3\]](#)[\[4\]](#)[\[5\]](#)

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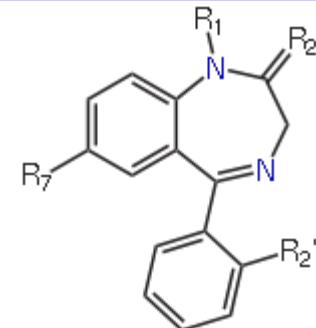
Benzodiazepine half-life and equivalent dose table

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It is important to note that the [elimination half-life](#) of diazepam and chlordiazepoxide as well as other long half-life benzodiazepines is twice as long in the elderly compared to younger individuals. Individuals with an impaired liver also metabolise benzodiazepines more slowly. Many doctors make the mistake of not adjusting benzodiazepine dosage according to age in elderly patients. Thus the equivalent doses below may need to be adjusted accordingly in individuals on short acting benzodiazepines who metabolise long-acting benzodiazepines more slowly and vice versa. The

Benzodiazepines



The core structure of benzodiazepines. "R" labels denote common locations of side chains, which give different benzodiazepines their unique properties.

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changes are most notable with long acting benzodiazepines as these are prone to significant accumulation in such individuals. For example the equivalent dose of diazepam in an elderly individual on lorazepam may be up to half of what would be expected in a younger individual.^{[6][7]} Equivalencies between individual benzodiazepines can differ by 400 fold on a mg per mg basis; awareness of this fact is necessary for the safe and effective use of benzodiazepines.^[8]

Drug Name	Common Brand Names*	Time to Peak (Onset of action in hours)	Elimination Half-Life (h) [†] [active metabolite]	Therapeutic use	Approximate Equivalent Dose [‡]
Alprazolam	Helex, Xanax, Xanor, Onax, Alprox, Restyl, Tafil, Paxal	1-2	6–12 hours	anxiolytic	0.5 mg
Bretazenil ^[9]	N/A	?	2.5 hours	anxiolytic, anticonvulsant	0.5 mg
Bromazepam	Lectopam, Lexotanil, Lexotan, Bromam	1-3	10–20 hours	anxiolytic	5–6 mg
Brotizolam	Lendormin, Dormex, Sintonal, Noctilan	0.5-2	4–5 hours	hypnotic	0.25 mg
Chlordiazepoxide	Librium, Risolid, Elenium	1.5-4	5–30 hours [36–200 hours]	anxiolytic	25 mg
Cinolazepam	Gerodorm	0.5-2	9 hours	hypnotic	40 mg
Clonazepam	Rivotril, Klonopin, Iktorivil, Paxam	1-4	18–50 hours	anxiolytic, anticonvulsant	.25-.5 mg
Clorazepate	Tranxene, Tranxilium	Variable	36–100 hours	anxiolytic, anticonvulsant	15 mg
Clotiazepam	Veratran, Clozan, Rize	1-3	6-18 hours	anxiolytic	5-10 mg
Cloxazolam	Sepazon, Olcadil	2-5 (?)	18–50 hours	anxiolytic, anticonvulsant	1 mg
Delorazepam	Dadumir	1-2	60–140 hours	anxiolytic	1 mg
Diazepam	Antenex, Apaurin, Apzepam, Apozepam, Hexalid, Pax, Stesolid, Stedon, Valium, Vival, Valaxona	1-1.5	20–100 hours [36-200]	anxiolytic, anticonvulsant, muscle relaxant	10 mg
Estazolam	ProSom	1-5	10–24 hours	hypnotic	1–2 mg
Etizolam	Etilaam, Pasaden, Depas	1-2	6 hours	anxiolytic, hypnotic	1 mg
Flunitrazepam	Rohypnol, Fluscan, Flunipam, Ronal, Rohydorm,	0.5-3	18–26 hours [36–200 hours]	hypnotic	1 mg

	Flurazepam	Dalmadorm, Dalmane	1-1.5	40–250 hours	hypnotic	15–30 mg
	Flutoprazepam	Restas	0.5-9	60–90 hours	hypnotic, anticonvulsant	2–3 mg
	Halazepam	Paxipam	1-3	30–100 hours	anxiolytic	20–40 mg
	Ketazolam	Anxon	2.5-3	30–100 hours [36-200]	anxiolytic	15–30 mg
	Loprazolam	Dormonocyt	0.5-4	6–12 hours	hypnotic	1–2 mg
	Lorazepam	Ativan, Lorenin, Temesta, Tavor, Lorabenz	2-4	10–20 hours	anxiolytic, anticonvulsant	1 mg
	Lormetazepam	Loramet, Noctamid, Pronoctan	0.5-2	10–12 hours	hypnotic	1–2 mg
	Medazepam	Nobrium	?	36–200 hours	anxiolytic	10 mg
	Midazolam	Dormicum, Versed, Hypnovel, Dormonid	0.5-1	3 hours (1.8– 6 hours)	hypnotic, anticonvulsant	5 –7.5 mg [10]
	Nimetazepam	Erimin	0.5-3	14–30 hours	hypnotic	5 mg
	Nitrazepam	Mogadon, Alodorm, Pacisyn, Dumolid, Nitrazadon	0.5-7	15–38 hours	hypnotic, anticonvulsant	5 mg
	Nordazepam	Madar, Stilny	?	50–120 hours	anxiolytic	10 mg
	Oxazepam	Seresta, Serax, Serenid, Serepax, Sobril, Oxabenz, Oxapax	3-4	4–15 hours	anxiolytic	20 mg
	Phenazepam	Phenazepam	1.5-4	60 hours	anxiolytic, anticonvulsant	1 mg
	Pinazepam	Domar	?	40–100 hours	anxiolytic	20 mg
	Prazepam	Lysanxia, Centrax	2-6	36–200 hours	anxiolytic	20 mg
	Premazepam	N/A	2-6	10–13 hours	anxiolytic	3.75 mg
	Quazepam	Doral	1-5	39–120 hours	hypnotic	20 mg
	Temazepam	Restoril, Normison, Euhypnos, Temaze, Tenox	0.5-3	8–22 hours	hypnotic	20 mg
	Tetrazepam	Mylostane	1-3	3–26 hours	Skeletal muscle relaxant	100 mg
	Triazolam	Halcion, Rilamir	0.5-2	2 hours	hypnotic	0.25 mg

Atypical benzodiazepine receptor ligands

[edit]

Drug Name	Common Brand Names*	Elimination Half-Life (h) [†] [active metabolite]	Primary Effects	Approximate Equivalent Dose [‡]
Clobazam	Frisium, Urbanol	8–60 hours	anxiolytic,	20 mg

				anticonvulsant	
DMCM		?	?	anxiogenic, convulsant	Non-applicable
Flumazenil	Anexate, Lanexat, Mazicon, Romazicon	1 hour	antidote	Typical dose 0.2 - 0.6 mg ^δ	
Eszopiclone [§]	Lunesta	6 hours	hypnotic	3 mg	
Zaleplon [§]	Sonata, Starnoc	1 hours	hypnotic	20 mg	
Zolpidem [§]	Ambien, Nyctamel, Stilnoct, Stilnox, Zoldem, Zolnod	2.6 hours	hypnotic	20 mg	
Zopiclone [§]	Imovane, Rhovane, Ximovan; Zileze; Zimoclone; Zimovane; Zopitan; Zorclone,	4–6 hours	hypnotic	15 mg	

* Not all trade names are listed. Click on drug name to see a more comprehensive list.

† The duration of apparent action is usually considerably less than the half-life. With most benzodiazepines, noticeable effects usually wear off within a few hours. Nevertheless, as long as the drug is present it will exert subtle effects within the body. These effects may become apparent during continued use or may appear as withdrawal symptoms when dosage is reduced or the drug is stopped.

‡ Equivalent doses are based on clinical experience but may vary between individuals.^[1] ↗

§ The molecular structure of these drugs differs from the benzodiazepine molecule but they work on benzodiazepine receptors with the same or similar effects and are cross tolerant drugs.

δ Flumazenil is given to reverse the effects of benzodiazepines and similar drugs, and dosage range listed will vary depending on which drug is being counteracted, what dosage the first drug was given in, and whether the flumazenil is given to actually reverse overdose or just to reduce side effects.

See also

[edit]

- Benzodiazepine
- Benzodiazepine dependence
- Benzodiazepine withdrawal syndrome

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[edit]

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V · T · E	Benzodiazepine derivatives	[hide]
1,4-Benzodiazepines	Bromazepam · Camazepam · Carburazepam · Chlordiazepoxide · Cinolazepam · Clonazepam · Clorazepate · Cyprazepam · Delorazepam · Demoxepam · Devazepide * · Diazepam · Doxefazepam · Elfazepam · Ethyl carfluazepate · Ethyl dirazepate · Ethyl loflazepate · Fletazepam · Fludiazepam · Flunitrazepam · Flurazepam · Flutemazepam · Flutoprazepam · Fosazepam · Gidazepam · Halazepam · Iclazepam · Ketazolam · Lorazepam · Lormetazepam · Lufuradom * · Meclonazepam · Medazepam · Menitrazepam · Metaclazepam · Motrazepam · Nimetazepam · Nitrazepam · Nitrazepate · Nordazepam · Nortetrazepam · Oxazepam · Phenazepam · Pinazepam · Pivoxazepam · Prazepam · Proflazepam · Quazepam · QH-II-66 · Reclazepam · RO4491533 * · Ro5-2904 · Ro5-4864 * · Sulazepam · Temazepam · Tetrazepam · Tifluadom * · Tolufazepam · Tuclazepam · Uldazepam ·	
1,5-Benzodiazepines	Arfendazam · Clobazam · CP-1414S · Lofendazam · Triflubazam ·	
2,3-Benzodiazepines *	Girisopam · GYKI-52466 · GYKI-52895 · Nerisopam · Talampanel · Tofisopam ·	
Triazolobenzodiazepines	Adinazolam · Alprazolam · Estazolam · Flubromazolam · Triazolam ·	
Imidazobenzodiazepines	Bretazenil · Climazolam · FG-8205 · Flumazenil · Imidazenil · Iomazenil (¹²³ I) · L-655,708 · Loprazolam · Midazolam · PWZ-029 · Remimazolam · Ro15-4513 · Ro48-6791 · Ro48-8684 · Sarmazenil · SH-053-R-CH3-2'F ·	
Oxazolobenzodiazepines	Cloxazolam · Flutazolam · Haloxazolam · Mexazolam · Oxazolam ·	
Thienodiazepines	Bentazepam · Brotizolam · Ciclotizolam · Clotiazepam · Etizolam · Olanzapine * ·	
Pyridodiazepines	Lopirazepam · Zapizolam ·	
Pyrazolodiazepines	Razobazam * · Ripazepam · Zolazepam · Zomebazam ·	
Pyrrolodiazepines	Premazepam ·	
Tetrahydroisoquinobenzodiazepines	Clazolam ·	
Benzodiazepine prodrugs	Avizafone · Rilmazafone ·	
* atypical activity profile (not GABA _A receptor ligands)		

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