



RECOIL

A question among shooters is how rifle and shotgun recoil compares. The list below provides some objective answers.

Gun weight is an important, and inversely proportional, component of recoil. Shooting the exact same load, the heavier the gun, the lower the recoil energy; a gun that weighs twice as much, kicks half as hard. Therefore, gun weight is crucial to determining the recoil a shooter experiences when he or she pulls the trigger.

To give a realistic idea of how much various shotgun and rifle loads are liable to kick the shooter, the recoil figures below are for hunting guns of typical weight for their caliber or gauge. It happens that small gauge field shotguns typically weigh less than small bore hunting rifles, while the weight of large bore field shotguns (12 and 10 gauge) are more generally comparable to the weight of larger caliber hunting rifles.

There are a great many rifle cartridges, far more than there are shotgun gauges. In the interest of brevity and to facilitate comparison, listed are only reasonably well-known rifle calibers/loads and shotgun gauges/loads that are similar in recoil energy.

Note that the most powerful shotgun loads generate recoil comparable to elephant rifle cartridges. Shooters who would never think of shooting a .416 Rem. Mag. or .450 Nitro Express rifle even once will casually buy a box of 12 gauge, 3-inch Magnum shot shells for hunting season and shoot all 25 shells at a single sitting. It is no wonder flinching (and missing!) is so common.

Cal./Gauge (weight of load at MV fps)	Gun weight(lbs.)	Recoil energy (ft. lbs.)
7.62x39 Soviet (125 gr. at 2350) .410	7.0	6.9
bore, 2.5" (1/2 oz. at 1200) 6mm	5.5	7.1
Rem. (100 gr. at 3100)	8.0	10.0
.410 bore, 3" (11/16 oz. at 1135)	5.5	10.5
.30-30 Win. (150 gr. at 2400)	7.5	10.6
7mm-08 Rem. (140 gr. at 2860) 28	8.0	12.6
gauge, 2.75" (3/4 oz. at 1200) .308	6.0	12.8
Win. (150 gr. at 2800)	7.5	15.8
20 gauge, 2.75" (7/8 oz. at	6.5	16.1
1200) .270 Win. (140 gr. at 3000)	8.0	17.1
12 gauge, 2.75" (1 oz. at 1180)	7.5	17.3
.30-06 (180 gr. at 2700)	8.0	20.3
20 gauge, 2.75" (1 oz. at 1220)	6.5	21.0
.270 Wby. Mag. (130 gr. at 3375)	9.0	21.0
16 gauge, 2.75" (1 oz. at 1220)	7.0	21.5
7mm Rem. Mag. (175 gr. at 2870)	9.0	21.7
12 gauge, 2.75" (1-1/8 oz. at 1200)	7.5	23.0
.300 Win. Mag. (150 gr. at 3320)	8.5	23.5
.300 Wby. Mag. (150 gr. at 3400)	9.3	24.6
20 gauge, 2.75" (1-1/8 oz. at 1175)	6.5	25.0
.300 WSM (180 gr. at 2970)	7.3	27.1
16 gauge, 2.75" (1-1/8 oz. at 1240)	7.0	27.6
.35 Whelen (250 gr. at 2400)	7.5	27.9
.405 Win. (300 gr. at 2200)	8.0	30.6
20 gauge, 3" (1-1/4 oz. at 1185)	6.5	31.0
.300 Wby. Mag. (180 gr. at 3240)	9.0	31.6
12 gauge, 2.75" (1-1/4 oz. at 1330)	7.5	32.0
.338 Win. Mag. (200 gr. at 2950)	8.5	32.8
.340 Wby. Mag. (250 gr. at 2941)	9.0	43.4
12 gauge, 2.75" (1-1/2 oz. at 1260)	7.5	45.0
.375 Wby. Mag. (300 gr. at 3240)	10.0	47.3
12 gauge, 3" (1-5/8 oz. at 1280)	7.5	52.0
.416 Rem. Mag. (400 gr. at 2400)	10.0	52.9
.375 Ultra Mag (300 gr. at 2800)	8.8	53.2
12 gauge, 3" (1-7/8 oz. at 1210)	8.7	54.0
.450 NE (465 gr. at 2150)	11.0	55.5
.458 Win. Mag. (500 gr. at 2100)	9.0	62.3
10 gauge, 3.5" (2-1/4 oz. at 1210)	10.5	62.9