

From modes to tritones to techniques borrowed from classical masters, you can learn a lot from rock's heaviest style.

Metal Lessons



Brian Welch of the metal band Korn performs in concert.

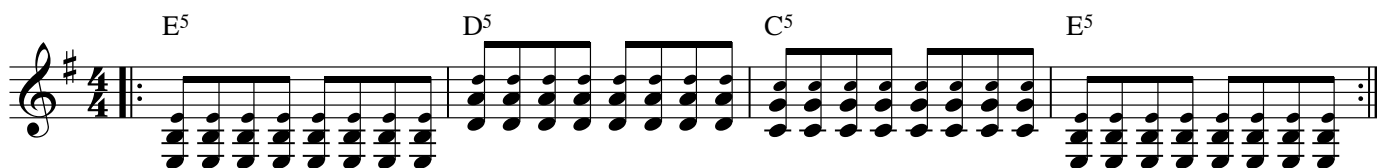
When it comes to talking about musical genres, the term *heavy metal* is especially descriptive. This big, loud, and powerful form of rock was born in the late 1960s and early '70s when the first large amplifiers appeared. British bands like Black Sabbath and Deep Purple were the pioneers of the style, which added a gothic European element to the American roots of rock. It would later evolve to become faster and more furious through American bands like Metallica and Megadeth.

While casual listeners might focus on the genre's louder aspects or fashions, heavy metal has produced some of rock's most technically gifted—and musically trained—players. “Metal’s never been just about a bunch of guys just making noise,” says Josef Hanson, an instructor at the University of Rochester, who teaches metal in his popular music classes. “Not only did many famous heavy metal artists study music formally; there are lots of deep literary references in the lyrics. For example, the band Manowar has a 28-minute long song, ‘Achilles, Agony and Ecstasy in Eight Parts,’ inspired by Homer’s epic poem the *Iliad*.”

Musically speaking, metal is quite sophisticated. It borrows from all kinds of sources, from the blues to Bach. It incorporates a wide range of techniques, from the power chords used to make tight rhythmic parts to the hyper fast instrumental passages that are akin to the most challenging concert violin cadenzas.

Playing metal songs can help you stretch out with scales and modes that are rarely used in more mainstream rock and pop, a workout that’s often matched by intensely challenging and precise rhythms—often played at breakneck speed.

In this lesson, we’ll explore some of the most common heavy metal techniques. The musical examples are written for the electric guitar—which plays a starring role in the genre—but you can adapt them to your own instrument working, either alone or with a partner.



1

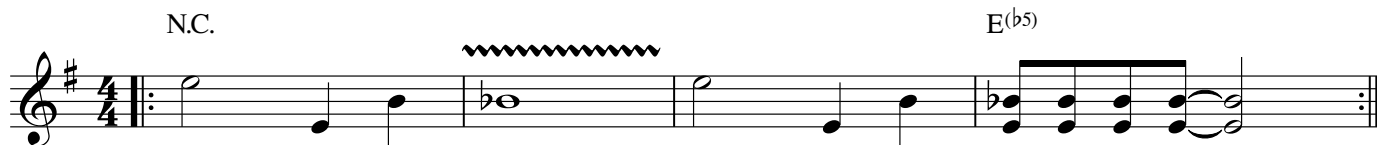
FEEL THE POWER

Though they're lean, two- and three-note chords put the heavy in heavy metal.

POWER CHORDS (a.k.a. “power fifths”) have only two notes: the root and the fifth. “Power chords might only have two notes,” says Hanson. “But they’re all about texture and sound.”

They’re common in rock, but are especially popular in heavy metal because they sound clearer than standard major and minor chords, especially when the music is loud and distorted. Interestingly, these guitar chords are easy play on violin, viola, or cello, where the strings are a fifth apart. The example here shows a typical power-chord progression in the

key of E minor. (Non-guitarists, note that the music sounds an octave lower than written.) The cue-sized notes represent an octave of the root, which guitarists sometimes add to these two-note chords. (In other words, E B and E B E are basically the same chord, but the latter has a higher E.) To best appreciate how power chords compare to standard chords, play the passage as written, then try three-note chords (or *triads*): Em, D, C, and Em. Even though they have fewer notes, the power chords sound, well, more powerful!



2

DEVIL IN MUSIC

The ominous interval of a tritone is a favorite of heavy-metal musicians.

LONG AGO, THE INTERVAL of a *tritone*—two notes that are three whole steps apart—was known as the *diabolus in musica* (devil in music) and strictly forbidden in church music. It's now used in everything from jazz to classical music, but it's especially effective in heavy metal, which often has dark, gothic lyrics. The brooding E-minor riff shown here focuses on the tonic (E) and the tritone (Bb) and

can be performed on any instrument. "Even tuba players," says Hanson, "can feel like rock stars when they play around with tritones." After playing the riff a few times, try substituting an A or a B for each Bb—the sound is nowhere near as sinister as the tritone, is it? Once your ear gets used to the interval, work your way up from E to other tritone combinations to hear how they sound.



3

RAIDING THE PHRYGIAN

The third mode of the major scale is a common melodic source in metal.

A SCALE NORMALLY STARTS and ends with tonic (the "name note"), but you can play different modes of the scale by starting and ending with its second, third, fourth, fifth, sixth, and seventh notes. The third mode of the major scale is the *Phrygian* (pronounced like fridge-ian) mode, which takes its name from an ancient kingdom in what is now Turkey. The Phrygian mode is especially popular in metal. In the key of C, it's spelled E F G A B C D. It's actually very similar to a natural minor scale, but the half-step interval between the first two notes (E and F) gives it an unusual sound. "Though

only one note is different, it sounds a bit more ominous than the natural minor scale," says Hanson. "Phrygian is heard often in metal, in songs like 'Symphony of Destruction' by Megadeth." This riff above is inspired by that song.

It's based largely on the A Phrygian mode (A, Bb, C, D, E, F, G). Note that the first two beats of each measure include power chords (Bb5 and A5). In the last measure, beginning on the "and" of beat 2, there's a hint of the chromatic scale—which is also commonplace in metal—adding drama to the music.



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4

HOOFING IT
A common rhythm called the gallop gives a sense of urgency to the music.

THE RHYTHM OF AN EIGHTH NOTE followed by two 16ths is called the gallop because it resembles the sound made by a horse's gait. It's also very popular in heavy metal because it gives the music a relentlessly driving feel. "You can hear this essential rhythm in everything from Deep Purple's 'Highway Star' to Metallica's 'The Four Horsemen,'" Hanson says. This exercise brings together the

gallop, power chords, and tritones. The gallop often played with a staccato or muted sound, so (depending on your instrument) it can be a workout for your bow, embouchure, pick, or fingers. It can be tricky to execute the gallop at fast tempos, so it's best to take things slowly when learning the rhythm, then build speed, making sure that you continue to execute each note cleanly.



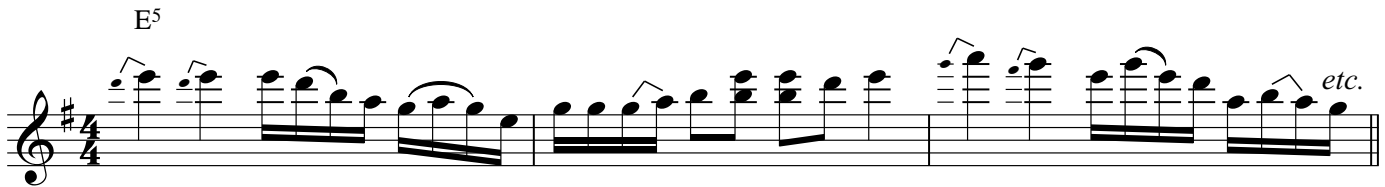
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TURN THE BEAT AROUND
Syncopation is another common rhythmic technique in metal.

SYNCOPIATION—in case you've forgotten, an emphasis on the weak beats—might not be the first technique that comes to mind when describing metal. But it's actually quite common in the style. "When we hear the word syncopation, we often think of big-band jazz," says Hanson. "But of course almost all pop music has lots of syncopation, and so does metal."

An excellent example of metal

syncopation is found in Deep Purple's "Smoke on the Water." The riff here features the same rhythms but a different set of chords. Check out how the riff starts squarely on beat 1, but at the end of bar 4, there's a cool effect as the progression is repeated starting on the "and" of the fourth beat. Also note the use of inverted power chords with fifths instead of roots in the bass.



6

BACK TO THE BLUES

Metal often borrows from old American styles.

THE BLUES IS AT THE FOUNDATION

of rock 'n' roll, and while metal is less tied to blues than other rock genres, there are times when blues influences take center stage. This is especially true in the music of English groups like Black Sabbath, Iron Maiden, Judas Priest, and others. It can be heard in the many heavy-metal guitar solos that make use

of the minor *pentatonic* (five note) scale (E–G–A–B–D in the key of E minor). Here's an example of a metal solo using the minor pentatonic, which can sound great over a power-chord backing. Start with the part as written, then try improvising; with only five notes, the minor pentatonic makes good source material as you learn the skill.



7

HOOKED ON CLASSICS

Virtuoso violin works are inspiration for the most technically gifted metal guitarists.

MANY METAL MUSICIANS ARE

HUGE FANS of classical music and have been known to adapt it in their own work. "In metal solos, techniques like arpeggios, tremolo picking, and other embellishments come straight from classical music," says Hanson.

The music here is an excerpt from Niccolò Paganini's "Caprice No. 5," intended to be played extremely fast. This very piece was the inspiration for the guitarist Steve Vai in a scene in

Crossroads, the film inspired by the legend of the bluesman Robert Johnson. On the violin—the instrument Paganini played and composed for—"Caprice No. 5" is a showstopper. But on Vai's electric guitar with a generous amount of distortion and loudness, it's downright heavy. Take this one slowly—it's pretty intricate—and when you master the notes and start to build speed, try to maintain the intensity gaining both technique and power in one exercise. **T**