

Guitar Basics

Here are a few basic lessons to get started with.

[Introduction To The Guitar](#)

[How To Tune A Guitar](#)

[Being In Tune: How It Can Make You Or Break You](#)

[Fretboard Diagram](#)

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How To Tune A Guitar

About Tuning

The first thing you should whenever you pick up the guitar to play or practice is get it in tune. The sound of an out of tune guitar ranks up there with the sound of fingernails scratching on a chalkboard. It can be very discouraging to play an out of tune guitar, because nothing you play will sound right. In fact some beginners quit playing at all because of this very reason.

Tuning your guitar is something you get better at with practice. It takes time to develop your ears to the point that you are able to fine-tune your instrument. Once you have developed your "hearing power" you may hear subtle differences in pitch that you haven't heard before.

Always tune up. This means that you increase the tension of the string until it reaches the desired tone. If you go too far loosen the string tension and tune up again. This is much more accurate than tuning down and increases the chances of the string staying in tune.

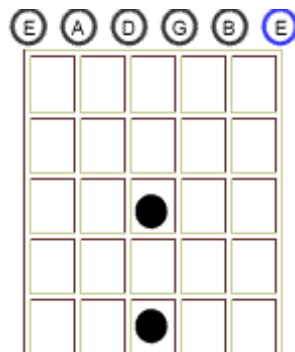
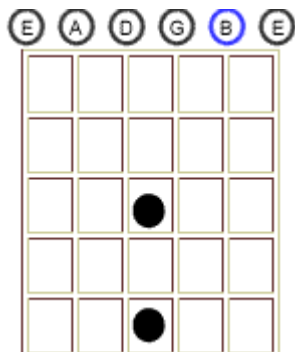
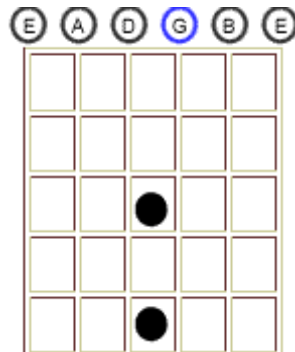
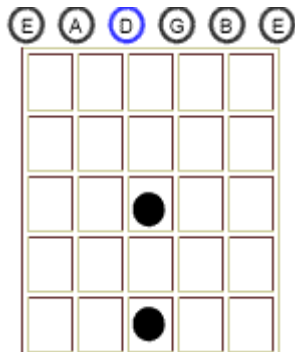
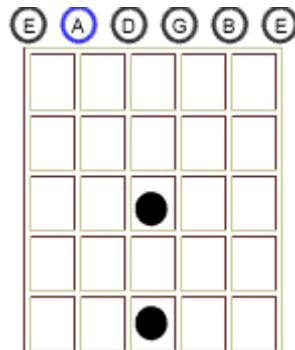
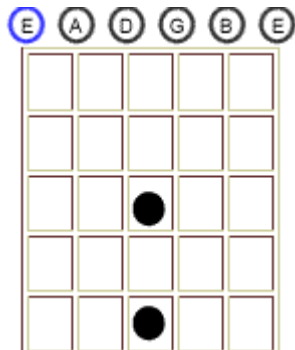
To tune your guitar you'll need a reference pitch from another guitar, a piano, a tuning fork, or an electronic tuner. You can get a decent tuner at any music store for under \$20. I suggest you get one if you don't already have one.

Standard Tuning

In standard tuning your strings will be tuned to the following notes low-to-high: E A D G B E. There are other tunings, but don't bother messing with them unless you know what

you are doing. Over 95% of all guitar music is in standard tuning or a dropped down version of it. Some guitar players tune all the strings down one half step.

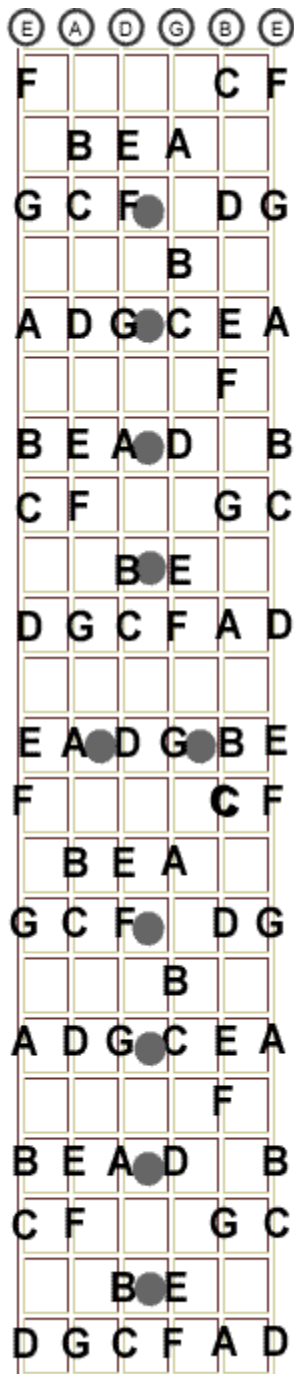
Use the audio clips to get your guitar in tune to standard tuning. Match the pitch of each string as closely as you can. It's all right if it takes you awhile. You'll get better with practice. Once you have tuned all six strings, go back and check them again. Sometimes you'll have to make some minor adjustments. Remember to tune up to the correct pitch and not down



Fretboard Diagram

Here is a handy little chart that you may want to print out. It has all the primary notes on the fretboard. The sharps and flats are not shown here. Sharps and flats are easy to identify, though. For example, to find an F#/GB just find the note between the F and G.

Note order: AA#/Bb-C-C#/Db-D-D#/Eb-E-F-F#/Gb-G-G#/AB



Practice Tips For The Guitarist

It's a good idea to practice at least a little every day. You should set aside some time each day to practice undisturbed, even if it's only 10 or 15 minutes a day. You will still see marked improvement from day to day or week to week if you practice a little every day.

Balance your practice sessions out. Don't just practice your chops, work on your brain power too. 9 out of 10 guitarists spend 6 months learning new things on the guitar and the next 10 years recycling the things they learned in the first 6 months that they began to play.

Spend part of your practice sessions working on your chops and part of your practice session learning new things and concepts that can apply to your playing.

Don't get frustrated! You may not see improvement overnight, but you will see improvement eventually. If you're having problems learning to play something, don't beat yourself up about it. You'll get it if you keep at it from day to day.

Set both short and long term goals. You may want to keep a journal to list your goals and keep track of your progress towards those goals. An example of a short term goal may be to learn 5 basic chord patterns and their barred versions. An example of a long term goal may be to learn all the notes on the fretboard.

Try recording a practice session then go back a month or two later and listen to it. You'll be amazed at the progress you've made if you've stuck with regular practice.

If you start to feel too much discomfort in your hands and/or fingers from practicing you may want to take a break or wait until the next day to continue. Over time the muscles in your hands will develop to the point where they won't cramp as much, and your fingertips will develop hard calluses.

Concentrate on your weaknesses. Don't spend most of your practice time on the areas that you would consider your strengths. Take the time to make your weaknesses strong, too.

Keep fresh material. At <http://guitaralliance.com> we can provide you with tons of material to keep your practice sessions fresh (if you're not a member yet then now is a great time to join).

Remember: When working through the material don't get ahead of yourself. If you come across something that you do not understand don't skip it and go on to something else. Stop and click the support button or visit the forums so that you get the help you need to understand. Skipping material is like skipping chapters in a novel: you'll be scratching your head in confusion.

A Word About String Gauges

Strings come in variety of gauges. The gauge of the string tells you the thickness of the strings. The lower the gauge the thinner the strings, higher gauges mean thicker strings. Most manufactures display the gauge size by the size (diameter) of the high E string (the smallest string). Typical gauges run from .008 to .0012.

Different strings are made for electric guitar and acoustic guitar. The most popular electric guitar gauge is .009. Most acoustic guitar players use .010. Novice and intermediate level guitarists will want to stick with these common gauges.

More experienced guitarists may want to experiment with higher gauges (.011 or .012 and up) because they offer better sustain and tone. Higher gauged strings are harder to play. They feel "heavy" under your fingers and take some getting used to. They'll also make your fingertips quite tender if you're not used to them.

Do not use heavy gauge strings until you have had a guitar technician look at your guitar. Using heavy gauge strings may require adjustments that only a qualified technician should perform.

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Changing Guitar Strings

There are thousands of types of guitars and many of them need different methods of changing strings. Use this guide as just an example.

One thing that will help you wind and unwind your strings faster is a little device you'll find at your music shop:



Take you string winder (or if you don't have one, do it by hand) and unwind the top string until it comes off the tuning machine. Trash the old string.



Insert your new string through the bridge or the bottom of the guitar tremelo system:



Pull the string out on the other side:



Insert the string into the tuning machine:



Make sure you line the string up into the nut:



Now take your string winder and wind it up:



Hold the string with your extra hand as below to keep slack out of the string:



Wind the string up until it doesn't rattle against the neck, then clip the excess string poking out of the tuning machine:

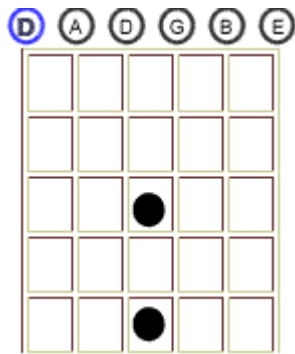


Repeat this procedure for the other 5 strings.

Drop D Tuning

Drop D tuning has become popular as of late. In drop D tuning the low E string is tuned down one whole step to D. This enables the guitarist to play power chords with a single finger. If your favorite band uses drop D tuning and you want to experiment with this tuning, by all means do so. Whatever you do, don't learn the guitar in drop D tuning- you'll get all mixed up.

To tune your guitar to drop D tuning, first make sure your [tuned to standard tuning](#). Then you'll want to tune your low E string down two steps to D (we drop it down one step, hence the name). See the picture below. You can use the audio clip below to tune your low E string to D for drop D tuning.



An example of the use of drop D tuning can be found in the song "Higher" by Creed.

It's a rich sounding riff because of the use of the open strings. It takes full advantage of the drop D tuning. Here it is:

Diagram showing three musical staves (T, A, B) for the song "Higher" by Creed, illustrating the use of drop D tuning. The staves are labeled T, A, and B, corresponding to the strings D, A, and B respectively. The tuning is drop D (D, A, D, G, B, E).

Staff 1:

String	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
T															
A	7	7	7	7	9	9	9	11	11	9	11	11	12	9	9
B	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7

Staff 2:

String	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
T															
A	11	9	7	9	9	11	9	7	7	7	9	9	7	7	7
B	7	7	7	7	7	7	7	5	5	5	5	5	5	5	5

Staff 3:

String	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
T															
A	12	11	11	11	9	11	11	9	7	7	7	7	7	7	7
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Guitar Tab Explained

No Music Reading Skills Needed

Traditional music notation was created to show what happens on a piano, not a guitar. The guitar's fretboard is drastically different than a piano's keyboard and requires a different sort of notation called *tablature* or "tab" for short. Unlike traditional music notation, guitar tab doesn't take years to master, it only takes minutes. Guitar tab gives us a visual representation of the fretboard and tells you precisely where to play on the fretboard.

[How To Read Tablature](#)

[Tablature Exercise](#)

Guitar Techniques In Tab

Learning how to read tablature also serves as a great way to learn about the different techniques that are used on the guitar. Tablature can give you a visual representation of bends, tapping, slides, and many more guitar specific techniques:

[Vibrato](#)

[Hammer-Ons](#)

[Pull-Offs](#)

[Slides](#)

[Tremelo Picking And Trills](#)

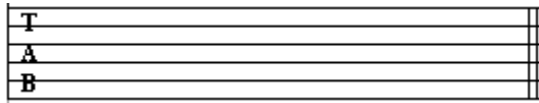
[Fretboard Tapping](#)

[Learning Songs With Tab](#)

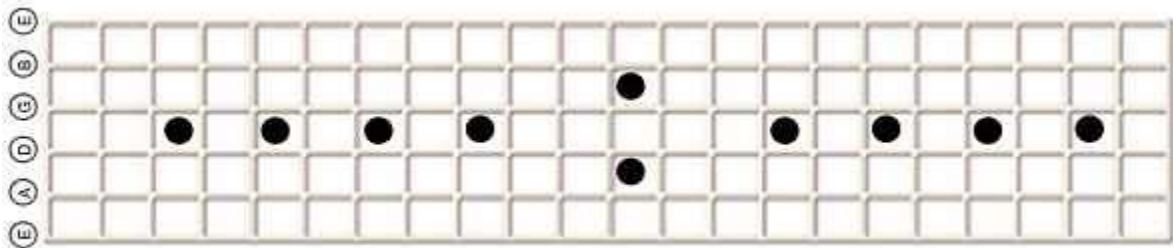
What Is Tablature?

Traditional music notation was created to show what happens on a piano, not a guitar. The guitar's fretboard is drastically different than a piano's keyboard and requires a different sort of notation called *tablature*. Unlike traditional music notation, tablature doesn't take years to master, it only takes minutes. Tablature gives us a visual representation of the fretboard and tells you precisely where to play on the fretboard.

Looking at a line of tablature is like looking down at your fretboard. The six lines represent the strings:



The high string is on the top and the lowest string is on the bottom like in the picture of the fretboard below:



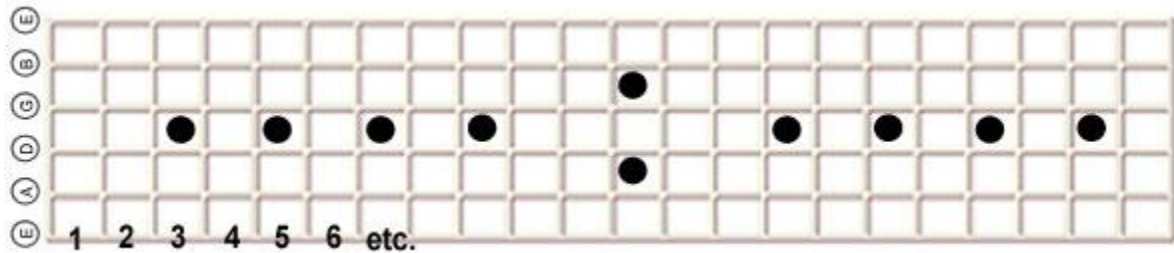
Lay your guitar down in front of you so that the headstock is on your left and the body is on your right. This is the "view" that a tablature staff gives us.

Numbers Are Notes

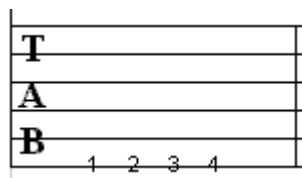
The open strings are represented by a zero. In the tab example below is a zero on the bottom string. This means to play the bottom string open.



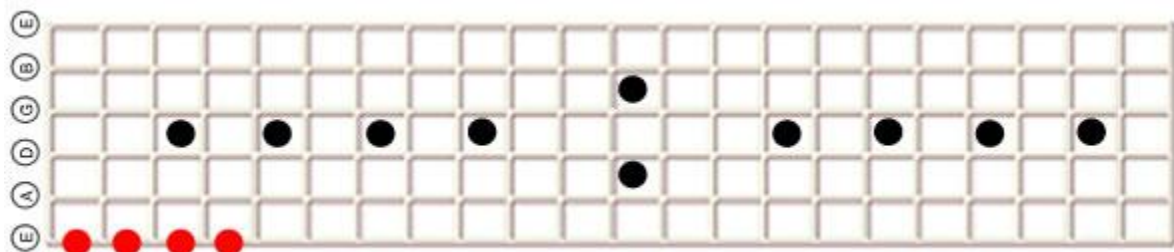
A fret to be played is represented by a number. The frets are numbered like so:



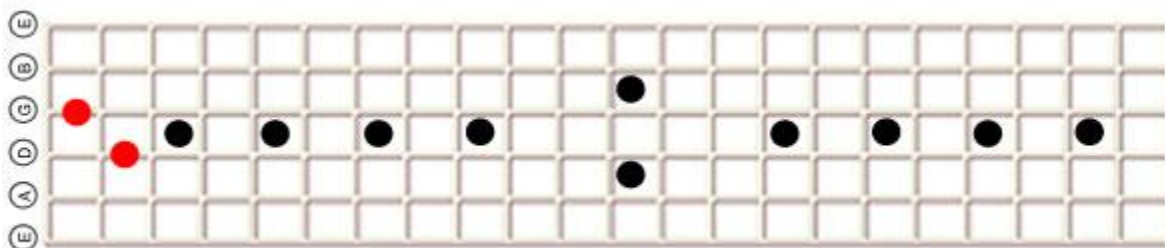
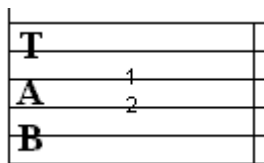
To play the example below you would 1st pick the note on 1st fret of the 6th string, then the 2nd, 3rd, and 4th frets.



Look at the picture of the fretboard below. The red dots show the frets the tab above is instructing you to play.



If you see notes stacked on top of each other, as in the example below, you are to play these notes at the same time.

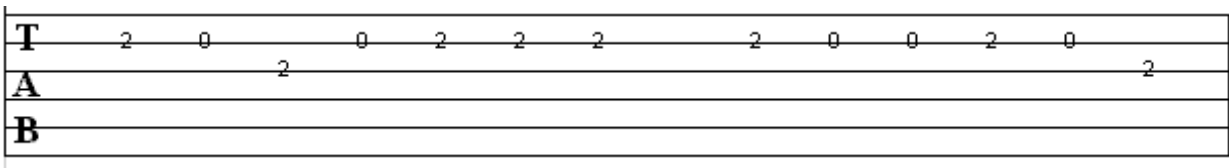
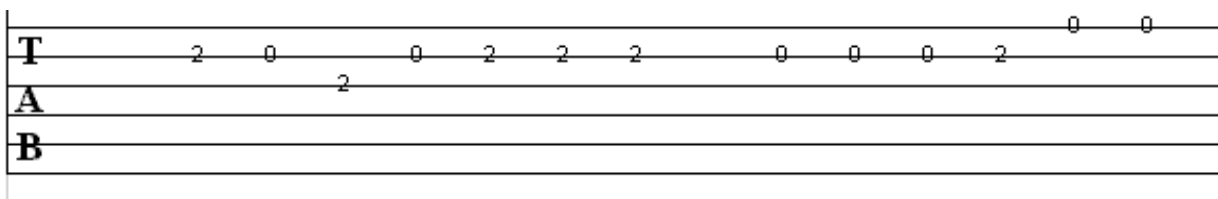


- Fingerings (which fingers to use) are **not** shown in tablature, so most times you'll have to figure them out yourself.
- Tablature is sometimes called "tab" for short.

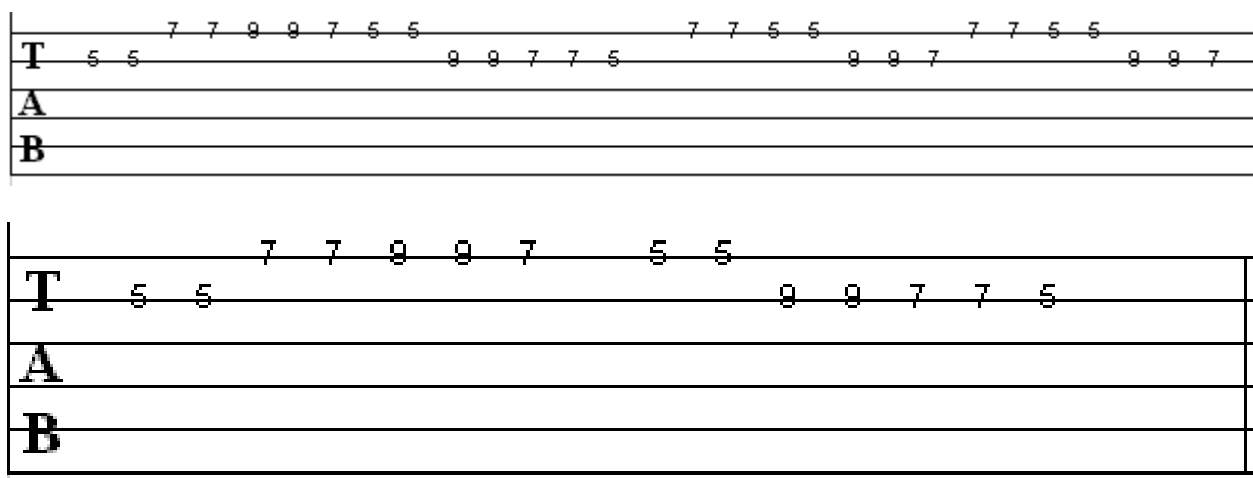
Tablature Exercise

Tablature sounds easy enough, right? One sure fire way to know if you're on the right track is to play along with a tune you know by heart. Try playing the well known tunes in tablature below and see if you've got the hang of it.

Mary Had A Little Lamb



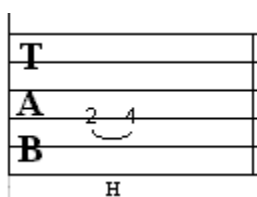
Twinkle, Twinkle Little Star



Hammer-Ons

A hammer-on is simple technique of "hammering on" the fretboard with one of your fingers to produce a note instead of picking the note.

To perform a hammer-on place the first finger of your fret hand on the D string on the 2nd fret. Play the note then bring the 3rd finger of your fret hand down onto the 4th fret. Do not pick this second note, instead "hammer" it hard with your 3rd finger to produce the second note. See the tab and audio example:



You get two or more notes for the price of one with a hammer-on, because you only pick the note that precedes the hammer-on note. You must bring your hammering finger down hard, fast, and hold it down firmly to get a good hammer-on note. In the audio example see if you can hear the difference between the notes picked or the notes with a hammer-on:

It may be difficult to hammer-on at first. Your hand may need a little time to build up enough strength to produce an audible note with a hammer-on. Keep on practicing it and you'll get good soon enough.

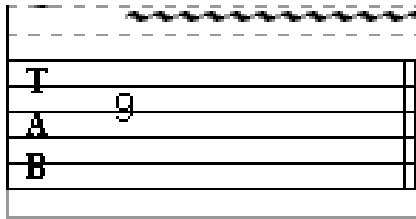
Here are some more examples of hammer-ons:

The image displays three musical staves (T, A, B) illustrating various guitar hammer-on techniques. The first staff shows a sequence of hammer-ons on the B string (5 to 8, 5 to 7, 5 to 7, 5 to 7, 5 to 7, 5 to 8) with corresponding fret numbers on the A and T strings. The second staff shows a sequence of hammer-ons on the B string (5 to 7, 5 to 7, 5 to 7) with corresponding fret numbers on the A string. The third staff shows a sequence of hammer-ons on the B string (1 to 3, 1 to 3, 1 to 3, 1 to 3, 1 to 3, 1 to 3) with corresponding fret numbers on the A and T strings.

Vibrato

Vibrato adds a lot of personality to your playing. Most great guitar players have a distinct vibrato. It's a key ingredient for playing good guitar.

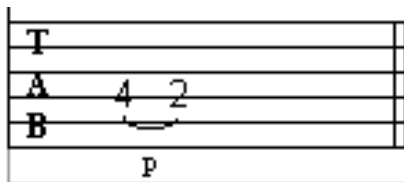
A basic Vibrato is performed by vibrating a note rapidly by a bending and releasing of a note with your fret hand. We're not bending it up to a higher pitch per say, just "shaking" the string. It appears in tablature as in the example below.



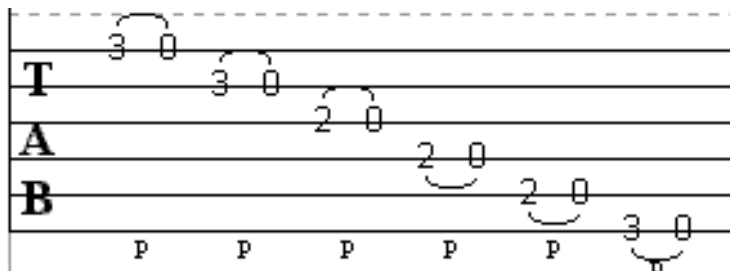
Pull-Offs

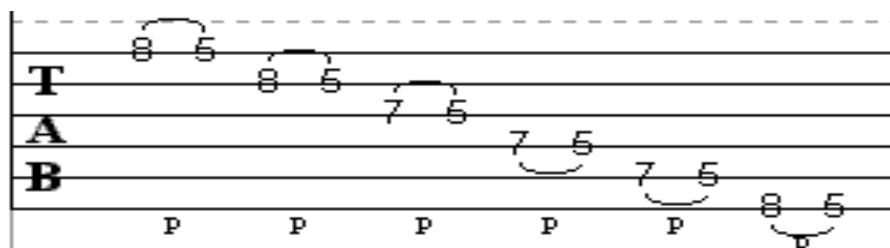
Pull-offs are performed by picking the 1st note and "pulling-off" to sound the 2nd note without picking it. Both fingers are to be placed on the notes to be sounded. Strike the 1st (higher) note, then sound the lower note by pulling the finger off the higher note while keeping the lower note fretted. It's hard to get it to sound right at first, but keep practicing.

In tablature a pull-off is represented by a "P" and a curved line connecting the two notes like in the example below:



Here are some more advanced pull-offs to practice. They're a little tough at first, but as with everything else, it's nothing practice won't cure.



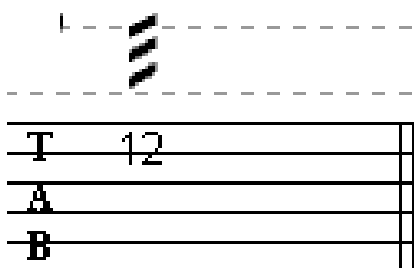


The previous two examples are built off of the pentatonic scale.

Tremelo Picking And Trills

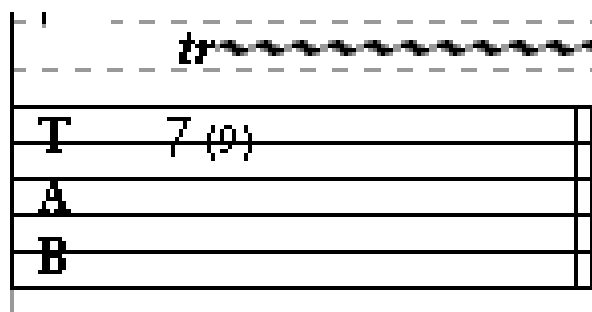
Tremelo Picking

Example 1

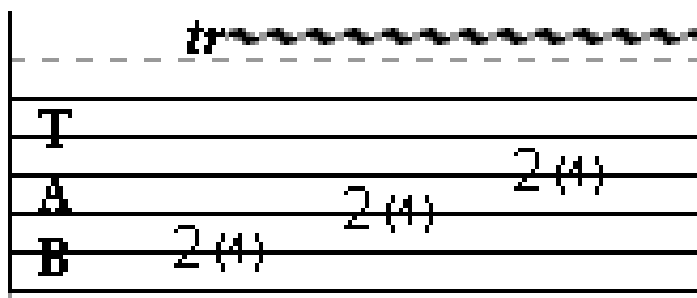


Trills

A trill is performed by quickly hammering on and pulling off two notes. It's usually represented by a "tr" and a squiggle line like seen for a vibrato. In the example below you can see a trill in tablature. Place your 1st finger on the note on the 7th fret and use your 3rd finger to rapidly hammer-on and pull-off on the 9th fret- which is in parenthesis.



Here's a series of 3 trills all in a row.

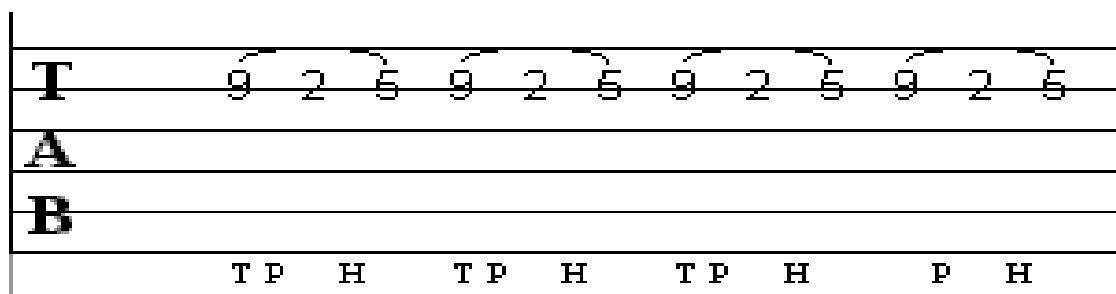


Fretboard Tapping

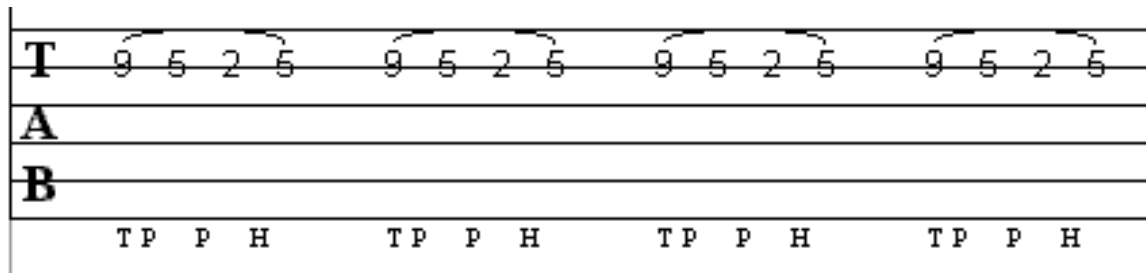
Tapping is the technique Eddie Van Halen made famous. It involves hammering on the fretboard with your 1st or 2nd finger of your picking hand to produce a note then pulling off to notes fingered by your fret hand. The involvement of the picking hand in this fashion is called a tap. It is usually represented by a "T" in tablature.

In the example below you can see that it is a 3 note pattern repeated. The 1st note is performed by tapping on the fretboard with your picking hand and pulling off onto the 2nd fret which is fingered with the fret hand (we suggest your 1st finger). The last note in the pattern is performed by hammering on the 5th fret with your 3rd or 1st finger of your fret hand.

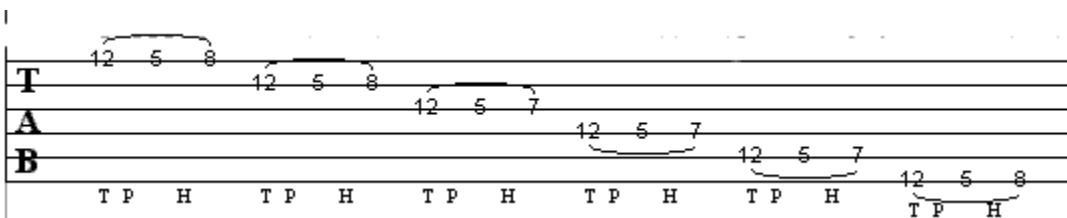
It's fairly easy to get a simple pattern like this really fast rather quickly-even for a beginner. Practice it until it sounds smooth and then try pumping up the speed.



Here's a variation:



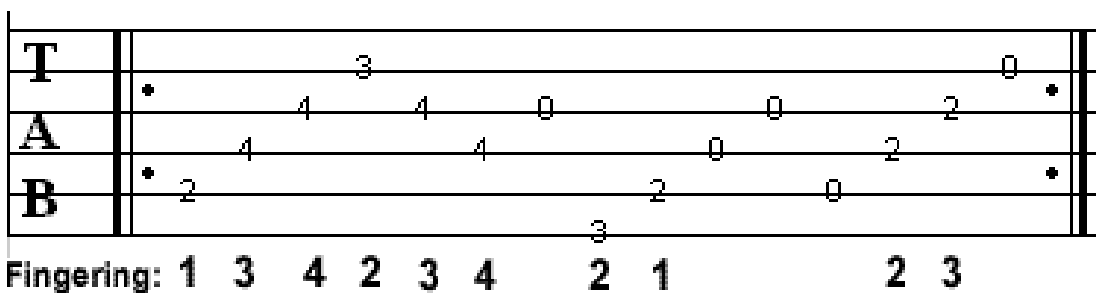
The lick below is similar to the one Eddie Van Halen performed in "Hot For Teacher". It involves all six strings. Give it a try!



Learning Song With Tablature

Intro To Kryptonite

Below is the main riff for the song "Kryptonite" by 3 Doors Down in tablature. Note the correct fingers to use are included with the tab at the bottom of the tab for your convenience. Practice the riff until you get it to the point where it's starting to sound like it's supposed to. It may take you awhile if you are just learning to play, but don't get frustrated. Practice is the name of the game, if you find yourself getting frustrated put the guitar down for a minute. Anger and frustration will only diminish your playing, not help it.



Let each note ring out as long as you can. To do this you need to hold down the chord voicing of with this riff has 3 as in the picture below. The correct fingerings are below the voicing.

T	3		0
	4	0	2
A	4	0	2
B	2	2	0
		3	
	2	0	0
	4	0	3
	3	1	2
	1	2	0

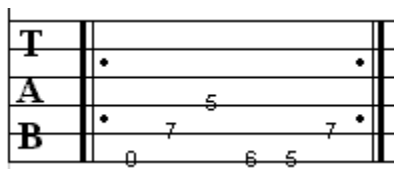
Practicing To A Beat

Once you're able to play it all the way through you can practice playing it along with a beat from a metronome or a drum machine. A metronome is a simple device that keeps the time by creating a regular beat, usually by making a clicking noise for every beat. You can get a metronome at any music store. They come in all shapes and sizes, most notable is the traditional piano metronome with it's swinging pendulum. Prices range from about \$10 all the way to \$100+. There's no need to spend more than \$20 for one. Drum machines cost a little bit more, but they're fun to practice with. You should get one or the other, because developing good rhythm is very important. A drum machine or metronome will do wonders for your sense of rhythm.

In the audio example below is the intro to Kryptonite being played in time with a drum machine. Keep practicing until you get it up to speed!

Main Riff From Enter Sandman

The main riff from the song "Enter Sandman" by Metallica is a fairly easy riff to learn to play even for the novice guitarist.



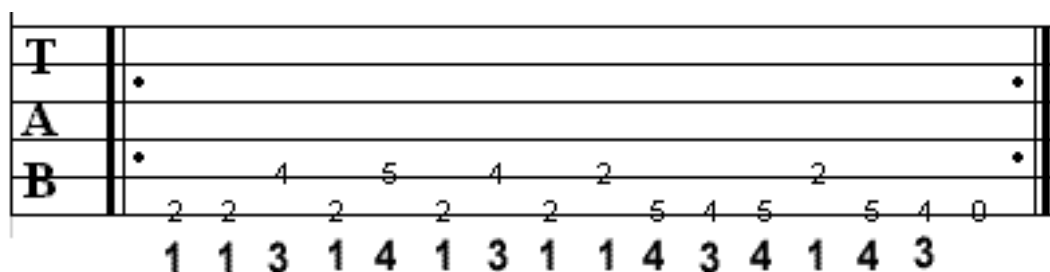
Riff From Crazy Train

"Crazy Train" by Ozzy Osbourne is probably the signature Randy Rhodes song. Rhodes, who died at a young age in a freak plane crash, was Ozzy's first guitarist in his solo career (Ozzy had been the original lead singer for Black Sabbath). Randy Rhodes was a well schooled guitarist who's music still influences other players today.

While most of "Crazy Train" is a bit difficult to play, the opening riff is rather easy to learn. Here it is:

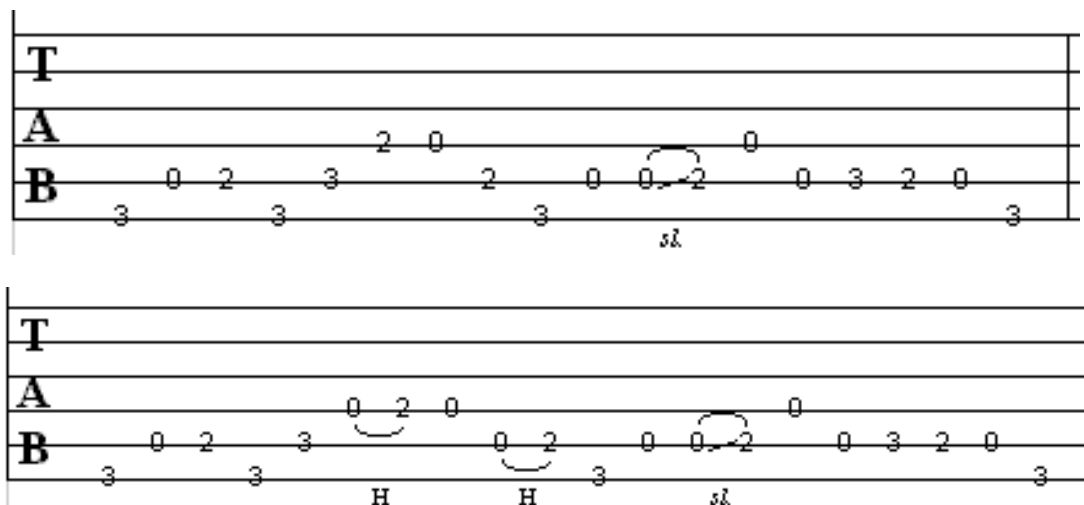


Fingerings



Intro To Redemption Song

"Redemption Song" by the legendary Bob Marley is a beautiful song with a memorable intro that's easy to learn.



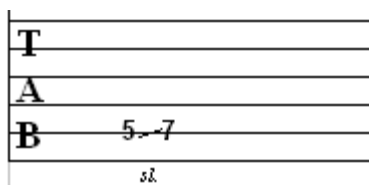
Slides

Slides are a basic guitar technique that you'll find in every style of music. A slide is just what it sounds like: sliding your finger either up, down, to, or from notes.

Shift Slide

A shift slide is a basic slide from one note to another. This slide is common when switching positions.

Both notes will be picked. Simply strike the note on the 5th fret then slide your finger up to the 7th fret and pick that note, too.

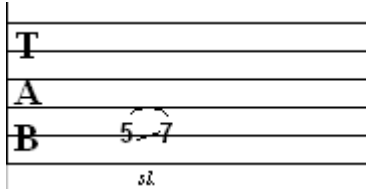


Legato Slide

Legato means "In a smooth, even style without any noticeable break between the notes".

With a legato slide we strike the first note and then slide our finger to another note without striking the second note.

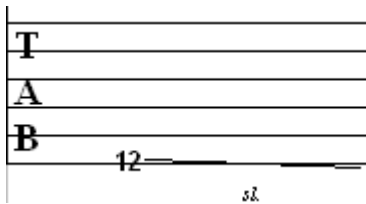
To show you that it's a slide you'll see a small "sl." under the notes you're going to be sliding from and to. You'll see a curved "umbrella" over the two notes. The umbrella tells you that it is a legato slide. Without it, it would just be a shift slide:



Strike the 1st note on the 5th fret and slide your finger up to the 7th fret and in the video:

Descending Slide

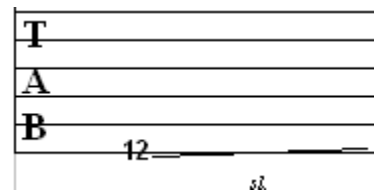
With a descending slide we strike the note and then slide all the way down the fretboard to no particular note. It will look like this:



Just pick the note and slide all the way down. Fun, isn't it?

Ascending Slide

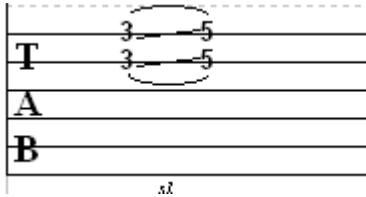
An ascending slide is similar to the descending slide, except you slide all the way UP the fretboard:



Double Slide

You can slide to and from more than one note at a time as in the sample below.

Just use your first finger to fret the notes. Pick the first two notes and then slide your finger up to the 5th fret. Easy!



Learn How To Play Guitar Chords

Introduction To Chords And The CAGED Fretboard System

Chords are 3 or more notes played at the same time. There are all types of chords, but all will fall under two categories: **major** and **minor** chords.

On the guitar there are only 5 basic major chord patterns. These primary chord patterns found on the guitar are C, A, G, E, and D. Together they spell the word CAGED which should help you remember them. All other chords that you will learn in the future come from the C, A, G, E, and D chord patterns.

CAGED is system of fretboard patterns for chords, scales, and arpeggios. It is derived from the unique tuning of the guitar. The C, A, G, E, and D basic chord patterns are just the beginning of the CAGED system. They are the first step in opening up a door to total fretboard domination.

Every other chord, scale, and arpeggio can be built from these 5 patterns. It has been rumored that Jimi Hendrix's vast abilities stem from his knowledge of the CAGED system and look at what it did for him. Understanding and mastering the CAGED system is the greatest achievement for any guitarist and GuitarAlliance.com [Member's Site](http://GuitarAlliance.com) will show you how to do this and more!

First Things First

Obviously the first thing you should do is to learn the basic chord patterns. Below I've taken a few pages out of the [Private Site](#) that will teach you the basics of playing chords, how to play the C, A, G, E, and D major chord patterns, a complete guide to power chords, and a little bit of chord theory:

[How To Read A Chord Diagram](#)

[The Basic Major Chord Patterns](#)

[Chord Troubleshooting](#)

[Guide To Power Chords](#)

[Common Open Chords Chart](#)

[Power Chord Exercises](#)

[Chord Construction](#)

What's Next?

Now that you know the 5 basic patterns major chord patterns and the 5 basic minor chord patterns, it's time to learn how to "carry" them up the neck to create new chords. We can do this by creating a **barre**. It's not easy to do at first, but you'll get the hang of it. Once you do, the sky is the limit. This information is only available in the Private Site, though.

You'll also find

- Strumming Exercises
- Chord ear training exercises
- Chord sequence charts
- Lessons on chord phrasing
- Guides to creating your own chord progressions
- The "easy" way to memorize all your chords

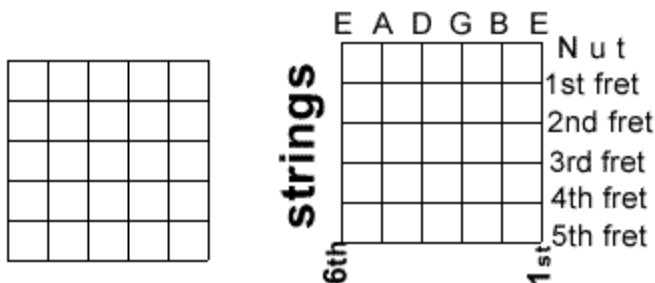
- More than **350** essential chord diagrams
- And much, much more...

How To Read A Guitar Chord Diagram

Chord diagrams show you how to play new chords.

Below is a blank chord diagram. *Think of it as a picture of your guitar sitting in front of you.*

The 6 vertical lines represent the 6 strings on a guitar (low E on left side, high E on right). The horizontal lines represent frets except for the top line which is the nut of the guitar.



● Black dots on the diagram tell you what fret and string to place your fingers. Numbers inside the dots tell you which finger to use.

○ White dots mean to play the string open (an open string is a string that is played without any notes being fingered on the fretboard).

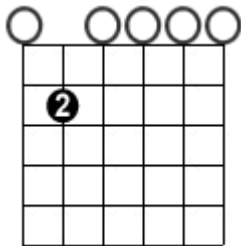
Here's how the fingerings are mapped out on your hand:



②=second finger

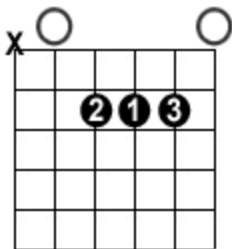
Try it

To play the chord on this chart, place your 2nd finger on the 2nd fret of the 5th string and **strum all six strings**.



You just played an E minor 7th chord!

If you see an "X" on a chord chart that simply means that you do not strum that string, otherwise all strings are played. In the example A chord below you'll see an "X" over the 6th string. This means that the string is not used in the chord, so you will not strum it when playing the chord.



To play this chord, you place your 2nd finger on the D string (4th) at the second fret, your 3rd finger on the B string (2nd string) at the second fret, and your 1st finger on the G (3rd) string second fret. The A string (5th) and High E string (1st) will be played open ("open" means that the string is not fretted, but strummed in the chord pattern).

The Basic Guitar Chord Patterns

Introduction To CAGED

The CAGED system is derived from the unique tuning of the guitar. To sum it up: there are 5 basic major chord patterns on the guitar. These basic chord patterns are the C, A, G, E, and D chords. There are also minor chord version of these 5 basic patterns.

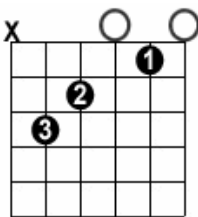
You'll notice that there are chords that seem to be missing such as **F chords** and **B chords** as well as chords with sharps or flats. Well, these chords don't have their own patterns. To play them (and **all** the other major and minor chords for that matter) you have to use one of the patterns on this page, so your **first step** is to master the chords on this page.

When you've got them down, it's time to learn their movable versions and how to apply them to the fretboard. You learn how to do this in the **Guitar Alliance Members Site**. To find out how to become a member, and get instant access to this additional information, please [click here](#).

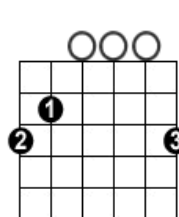
The 5 Basic Major Chord Patterns

Learn and memorize each chord pattern. Take your time to insure that you are playing them correctly. Each pattern is accompanied a picture of the chord being played and an audio sample of what the chord sounds like when played properly.

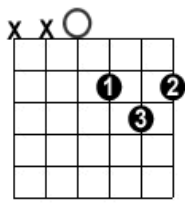
C



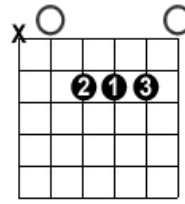
G



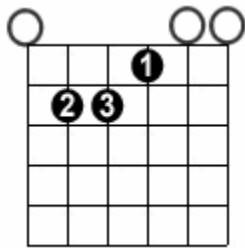
D



A



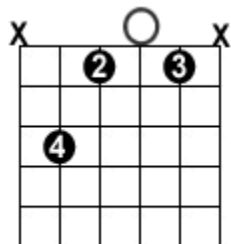
E



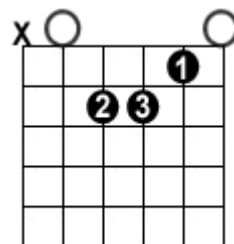
The 5 Basic Minor Chord Patterns

The C-A-G-E-D minor chords aren't much different than the CAGED major chords. The C minor and G minor are a little tougher than their major counterparts, but the A minor, E minor, and D minor are just as easy.

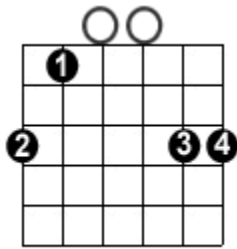
C Minor



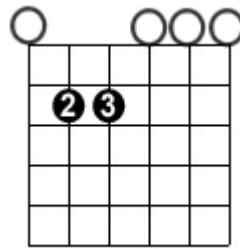
A Minor



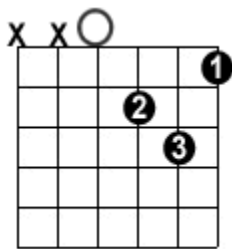
G Minor



E Minor



D Minor



D Minor

Chord Trouble Shooting

When you're first learning to play chords, it can be **very** difficult to get your fingers to cooperate. After a few days of practice your fingers will start remembering where to go. It's important to spend a little time everyday with these chords until you are comfortable with playing them.

Your fingertips on your fret hand will become sore and tender to the touch. If it becomes too painful, by all means stop practicing for the day and try again the next day. With steady practice you will develop calluses on your fingertips and this won't be any more problem.

If you're hearing a buzzing sound or the sound of the notes being played sound dull, then your not pressing hard enough on the strings, or one or more of your fingers is catching a nearby string. When you strum the chord each not should ring out clearly. You may find it hard at first to press all of the strings down firmly against the frets. If this is the case, don't fret. Your hands will build up the strength in no time with practice.

Chord Tips:

- o Don't let your fingernails get too long! They will prevent you from fingering the fret board correctly.
- o Make sure your fingers are standing straight up and down. Otherwise they may mute other strings.
- o When playing chords your fingers should be arched at the joints so that your fingertips come in contact with the strings and not the flat fingerprint part of your finger.
- o Your fingers should make contact with the strings slightly behind the frets if at all possible. The further your finger is from the fret the harder it is to apply the proper amount of pressure, hence the more likelihood that you'll get a "buzzing" sound.
- o The size of your hand and the width of your instrument's neck can significantly affect which fingers you use to play the chords. All of the chord charts on this site use the most commonly used chord fingerings. These fingerings will work for 95% of all guitarists.
- o You may come across a suggested chord fingering that you simply cannot contort your fingers to play. In this case try experimenting with alternate fingering

Press-Down Exercise

The most important thing to remember when playing chords is that each note in a chord must be pressed down as a unit, not separately.

Exercise 1

This exercise will help you establish the habit of pressing down each chord as a unit.

1. First, press down an C chord.
2. Next, lift your fingers off the strings about a half-inch as a unit, keeping the chord formation.
3. Then press your fingers back down onto the strings, firmly and quickly, keeping the formation.
4. Strum the chord. If any of your fingers miss the proper position in the chord, correct them and repeat the drill.

When you feel comfortable with the C chord, do the same exercise with the A, G, E, and D chord positions.

Exercise 2

Now we'll practice the press down exercise while changing chords.

1. Start with C, lift, and press down the A chord.
2. Release, then press down the G chord.
3. Release, then press down the E chord.
4. Release, then press down the D chord.

Keep it slow and practice any mistakes as you go along.

Guide To Power Chords

What Are Power Chords?

Power chords can be fun and easy to play. You can hear them in all types of music, but most people associate them with rock.

Power chords are not really chords. Chords are 3 notes or more, whereas power chords only have 2 different notes. A more correct name would be "power intervals" because they only contain two *different* notes. Usually power chords are composed of the root, a perfect 5th, and the octave. Basically they are just like playing perfect 5th intervals and doubling up a note or two.

Power chords are easy to play just about anywhere on the neck, but lend very little harmonic texture to a song. They do not have a major or minor third interval. A chord needs this interval in order to make it a major or minor chord.

If you're playing a song with a lot of distortion, strumming a full chord might create too much dissonance. Plus if you have a fast chord change, it's often easier to use power chords for the really fast part. Beginners will overuse them due to their convenience, but if used in moderation they can come in handy.

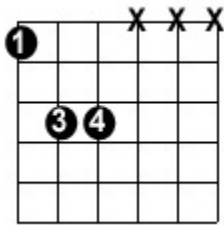
No Substitute For Learning The Real Thing

A lot of players get caught in the power chord trap. They learn how to play power chords but fail to learn the real chords. This is a major mistake. Just because you can play a C power chord does not mean you know a C chord. As we said before, they aren't really chords anyway.

Learning chords is one of the most important things a guitar player can do. It does not matter what style of music you are interested in, you cannot avoid learning your chords! Failing to learn them will mean that you will fail as a guitarist in the long run.

Now that we have that out of the way, here are the power chords:

6th String Root Power Chord



Read about the fret/chord chart for this chord pattern below.

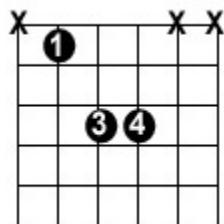
Fret/Chord Charts

Depending on what fret you play will determine what the name of the power chord is. You can find out it's name by looking at the fret/chord chart below. If you listened to my advice in the "Getting Started" section then you may not need to use the chart, because you already know the notes on the guitar.

The name of the chord can be determined by the **root** of the chord. The root is simply the lowest note in the chord. For instance, if we played the above chord pattern where the root of the chord falls on the 5th fret, we would be playing an A chord. If we played the chord pattern on the 12 fret, it would be an E chord.

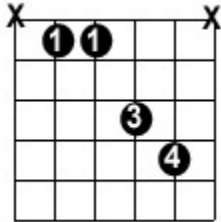
Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	F	F#/Gb	G	G#/Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E

5th String Root Power Chord



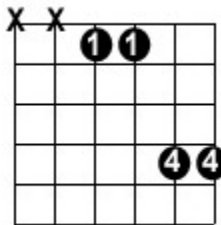
Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	A#/Bb	B	C	C#/Dd	D	D#/Eb	E	F	F#/GB	G	G#/AB	A

5th String Root Variation



Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	A#/Bb	B	C	C#/DD	D	D#/Eb	E	F	F#/GB	G	G#/AB	A

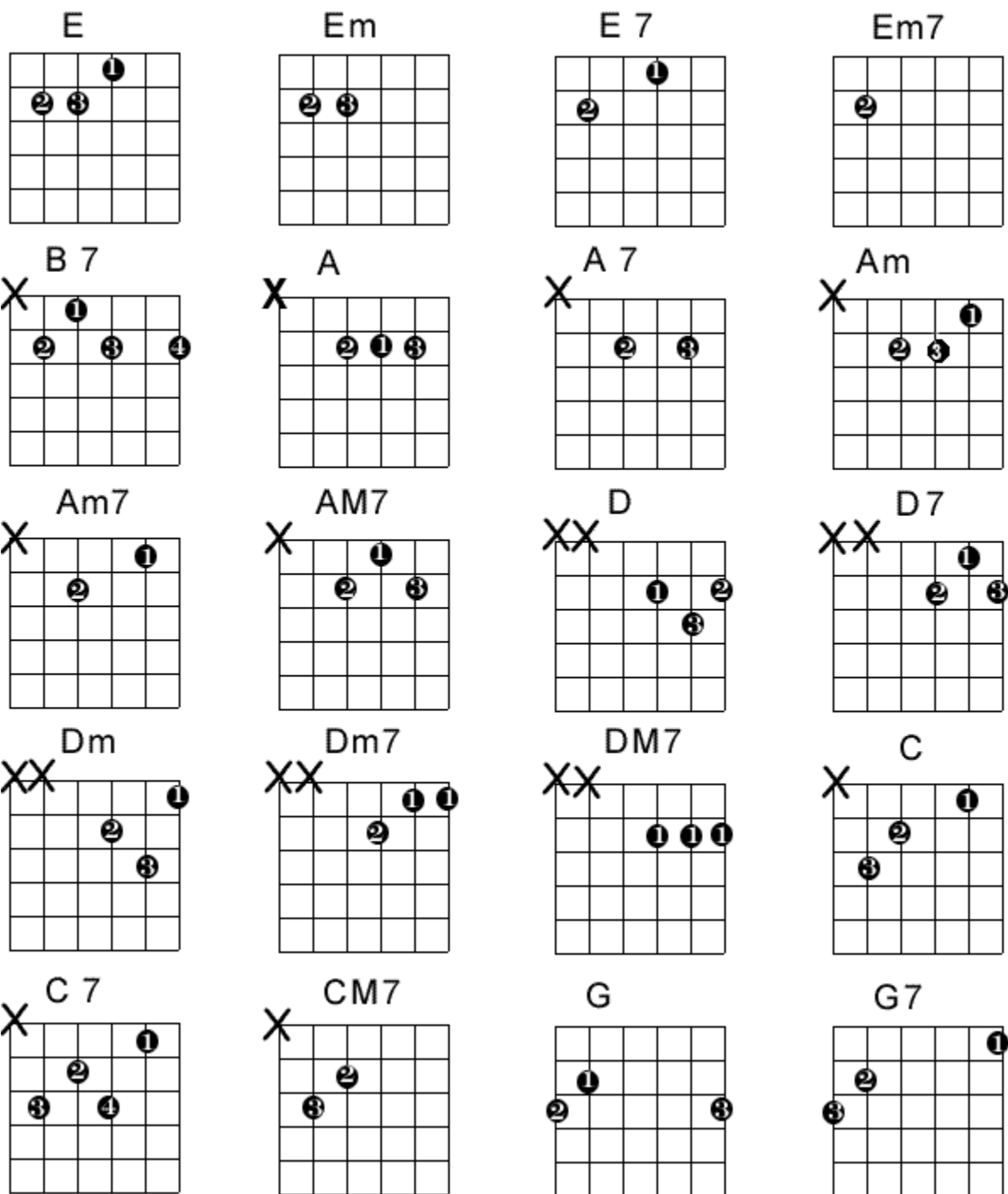
3rd String Root



Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	D#/Eb	E	F	F#/GB	G	G#/AB	A	A#/Bb	B	C	C#/dB	D

Common Open Guitar Chords

Here is a handy little chart of commonly used open position guitar chords. You strum all the strings unless the string has an X above it.



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Power Chords

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Power chords are easy to play just about anywhere on the neck, but lend very little harmonic texture to a song. They do not have a major or minor third interval. A chord needs this interval in order to make it a major or minor chord.

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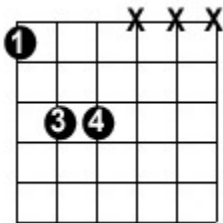
Learning chords is one of the most important things a guitar player can do. It does not matter what style of music you are interested in, you cannot avoid learning your chords! Failing to learn them will mean that you will fail as a

guitarist in the long run. Once you have finished **Guitar 101**, turn your full attention to the **Chords** section.

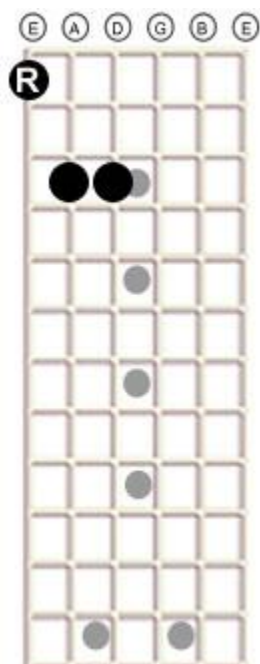
Power Chords Move

What I'm about to show you are power chord patterns. These patterns can be moved up and down to create different power chords. The root note determines what power chord it is.

Take a look at this power chord pattern. The note on the low E string is its root note:

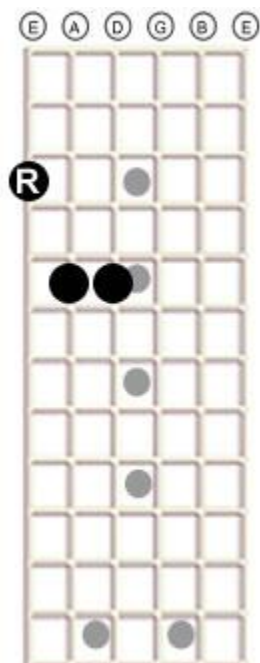


Now, by forming this pattern on the 1st fret we are creating an F power chord because the root note is on an F note.



We can play this pattern all the way up the fretboard creating different power chords.

Here it is with the root note on the 3rd fret. The note on the 3rd fret of the low E string is a G, so that makes this power chord a G.



If you don't quite know the names of the notes on the guitar's fretboard, then don't fret. Use the chart below to help you. At the top are numbers for the frets on the low E string. Below that are the names of the notes on those frets. If you're playing the power chord pattern above with it's root note on the fret numbers below, you'll know the name of the power chord by looking at the chord names under it.

Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	F	F#/Gb	G	G#/Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E

Guitar Chord Construction

Chords are a fundamental element in music. One of the reasons that the guitar is such a popular instrument is it's ability to play chords. If you think about it, most instruments don't have this ability. Of course keyboard instruments like pianos have this ability, but what about trumpets, or saxophone, etc.?

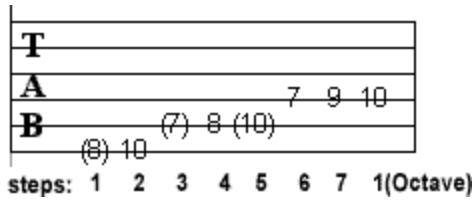
Constructing Major Chords

Chords can be constructed from the steps of the major scale. The most common chords are 3 note chords called triads. Major chords are the most common triad. For a major chord you take the Root, the 3rd and 5th steps of any major scale.

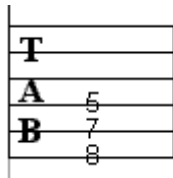
For example, let's take a look at the C Major Scale:



Now let's take the Root (1st step), 3rd step, and 5th step of the scale (in parentheses below).

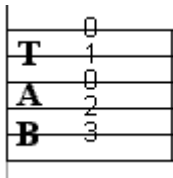


Playing these 3 notes simultaneously will produce a C Major chord. For fingering purposes in the picture below I've taken the 5th step note and moved it to the 4th string instead of the 5th.

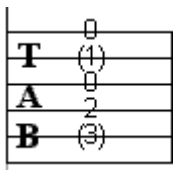


Since there are six strings on the guitar, you can double up on some, or all of the notes to create a more full sound.

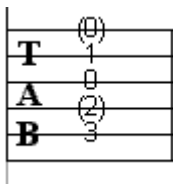
For example let's take a look at the C Major chord in the Open Position:



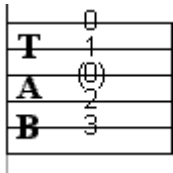
We have the Root (which is C) appearing twice (in parenthesis):



The 3rd step (which is E) appears twice also:



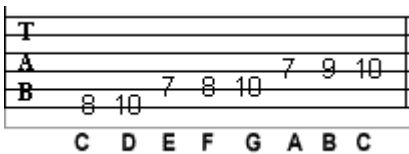
The lonely 5th step (G) appears only once:



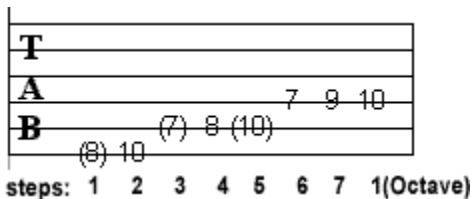
Constructing Minor Chords

Minor Chords are constructed using the Root (1st step), a flatted 3rd step and the 5th step of the Major Scale.

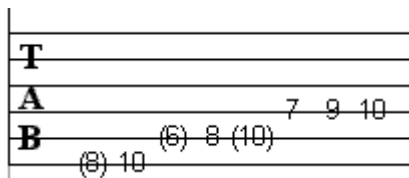
For example take a look at the C Major Scale:



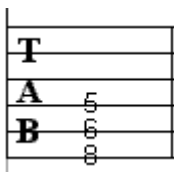
Now we'll take the 1st, 3rd, and 5th step like we did in constructing a Major Chord:



Now all you have to do is flat the 3rd, which just means we'll drop the note down one fret:



Playing these 3 notes simultaneously will produce a C Minor chord. For fingering purposes in the picture below I've taken the 5th step note and moved it to the 4th string instead of the 5th.



Major 7th Chord Construction

Where major and minor triads have 3 different notes, 7th chords have 4. Dominant 7th chords (the most common 7th chord) are constructed using the root, 3rd, 5th, and the 7th scale step flattened. For example, let's take a look at the C Major Scale:

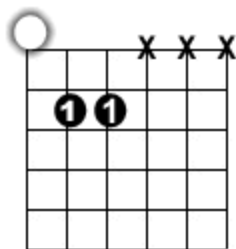


Now let's take the Root (1st step), 3rd step, and 5th step of the scale. In order to create a Dominant 7th chord we combine these 4 notes, except we flatten the 7th step (drop it down 1 fret).

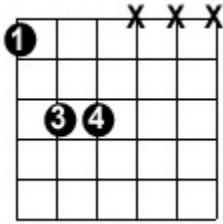
Power Chord Patterns

6th String Root Power Chord

Below is what the 6th string root power chord looks like in the open position. Played in the open position it's an E power chord because the root note is the open E string.



Here is its movable pattern:



In the example below, the power chord pattern is played with it's root on the 5th fret which is an A note, making this an A power chord.

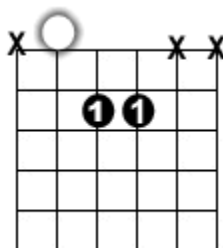


Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	F	F#/Gb	G	G#/Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E

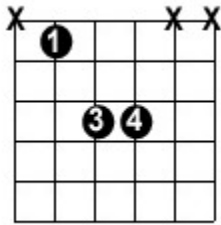
5th String Root Power Chord

This power chord pattern is similar to the previous pattern, only it's root note is now on the A string instead of the low E string.

Below is what the 6th string root power chord looks like in the open position. Played in the open position it's and A power chord.



Here is it's movable pattern:



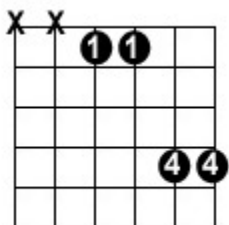
In the example below, the power chord pattern is played with it's root on the 5th fret making it an D power chord.



Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	A#/Bb	B	C	C#/Dd	D	D#/Eb	E	F	F#/GB	G	G#/AB	A

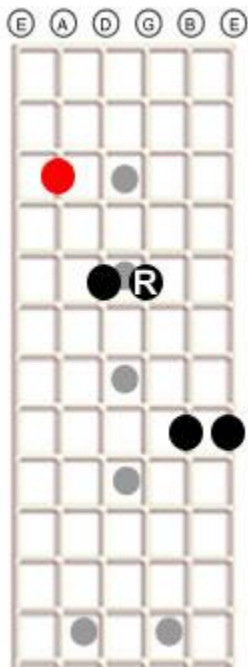
3rd String Root

This pattern is not used as often, either. It's a little hard to learn and play. The root of this power chord pattern is not the note on the lowest string, but instead it's the note played on the G string (3rd string).



You can look at it as an extension of the 5th string root power chord. In the picture below is the 3rd string root power chord pattern with it's root marked with

an "R". Now if you cover up the notes at the bottom on the B string and high E string you'll recognized the 5th string root power chord pattern. The root note to the 5th string root power chord is shown in red. It's on a C note, so it would be a C power chord. The root of the 3rd string root power chord is also a C note, so it too is a C power chord.



In the audio example below, the power chord pattern is played with it's root on the 5th fret making it an C power chord. The picture shows it with it's root on the 4th fret, which would be a B power chord.



Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	G#/Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E	F	F#/Gb	G

Power Chord Exercises 1

Each exercise is notated with a slash sheet. A slash sheet represents a chord progression and tells us how many beats we play the chord. Each measure gets four beats as illustrated with the black slashes in the middle of the staff. The chord that you play is labeled on top of the staff. You play this chord for the duration of the beats until another chord is shown.

1.

A5	D5	A5	E5
////	////	////	////

2.

G5	F5	C5	D5
////	////	////	////

3.

Bb	C5	D5	E5
////	////	////	////

Power Chord Exercises 2

4.

B5	A5	G5	F5

5.

F#5	B5	C#5	B5	F#5

6.

B5	E5	A5	D5	G5	C5	F5	Bb5

Guitar Arpeggio-Primer

[System Tutorial](#)

[01: G Major-Minor](#) [02: C Major-Minor](#) [03: A Major-Minor](#) [04: D Major-Minor](#)

[05: G7th - Gm7th](#) [06: C7th - Cm7th](#) [07: A7th - Am7th](#) [08: D7th - Dm7th](#)

[Arpeggio Theory](#)

Arpeggio Study: 01

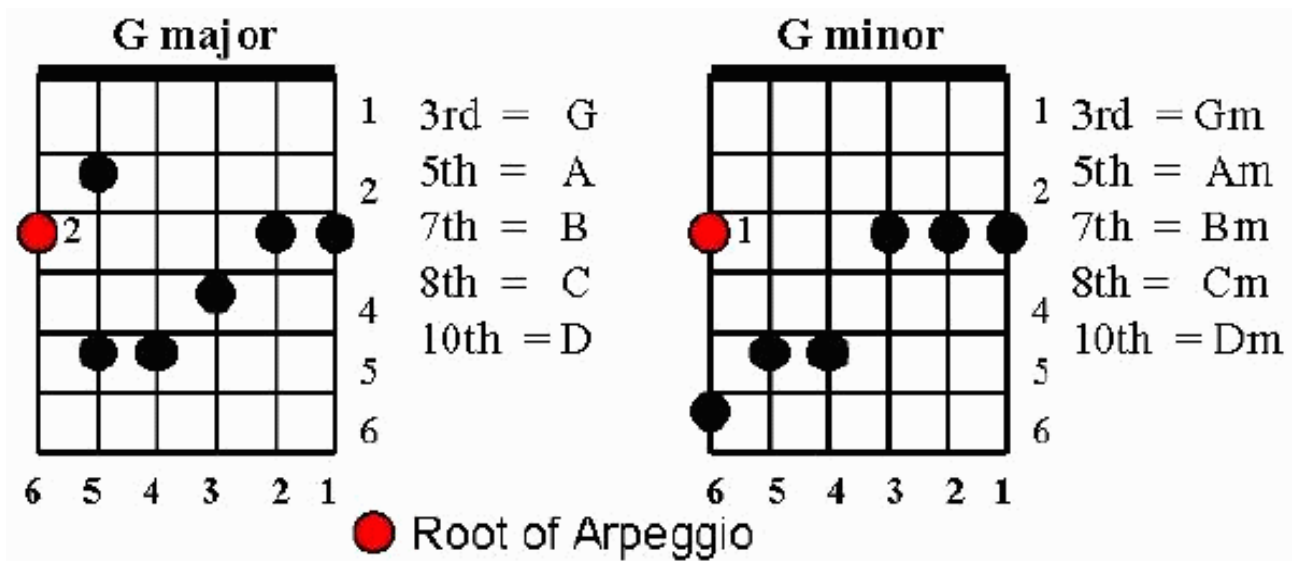
This is the first of an eight-part introduction to modern guitar arpeggios. Begin each arpeggio on the "Root" indicated in red. The appropriate starting finger is indicated within the illustration. These forms are moveable up the guitar fingerboard. A brief legend indicates the correct name as you move up the fingerboard.



[G Major Arpeggio \(G\)](#)



[G Minor Arpeggio \(Gm\)](#)



An arpeggio is a series of sequential tones that outline a specific chord structure. Play each arpeggio forward and backward. Start on the 6th string and end on the 1st string. Then, start on the 1st string and end on the 6th string. Memorize each form in all positions.

Arpeggio Study: 02 ➡



[C Major Arpeggio \(C\)](#)



[C Minor Arpeggio \(Cm\)](#)

C major

1 3rd = C
2 5th = D
3 7th = E
4 8th = F
5 10th = G
6

6 5 4 3 2 1

C minor

1 3rd = Cm
2 5th = Dm
3 7th = Em
4 8th = Fm
5 10th = Gm
6

6 5 4 3 2 1

● Root of Arpeggio

Arpeggio Study: 03

[A Major Arpeggio \(G\)](#)

A major

1 5th = A
2 7th = B
3 8th = C
4 10th = D
5 12th = E
6

6 5 4 3 2 1

[A Minor Arpeggio \(Gm\)](#)

A minor

1 5th = Am
2 7th = Bm
3 8th = Cm
4 10th = Dm
5 12th = Em
6

6 5 4 3 2 1

● Root of Arpeggio

Arpeggio Study: 04

[D Major Arpeggio \(D\)](#)

[D Minor Arpeggio \(Dm\)](#)

D major

1 5th = D
2 7th = E
4 8th = F
5 10th = G
4 12th = A

D minor

1 5th = Dm
2 7th = Em
4 8th = Fm
5 10th = Gm
4 12th = Am

● Root of Arpeggio

Arpeggio Study: 05



[G Seventh Arpeggio \(G7\)](#)



[G Minor Seventh Arpeggio \(Gm7\)](#)

● Root of Arpeggio

G 7

1 3rd = G7
2 5th = A7
2 7th = B7
4 8th = C7
5 10th = D7

Gm7

1 3rd = Gm7
2 5th = Am7
2 7th = Bm7
4 8th = Cm7
5 10th = Dm7

Arpeggio Study: 06

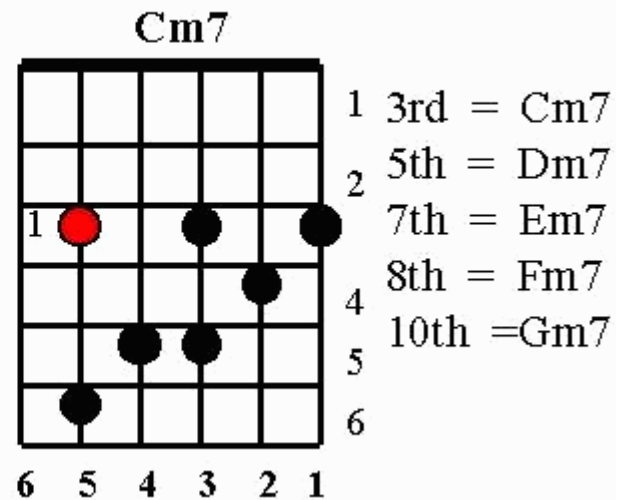
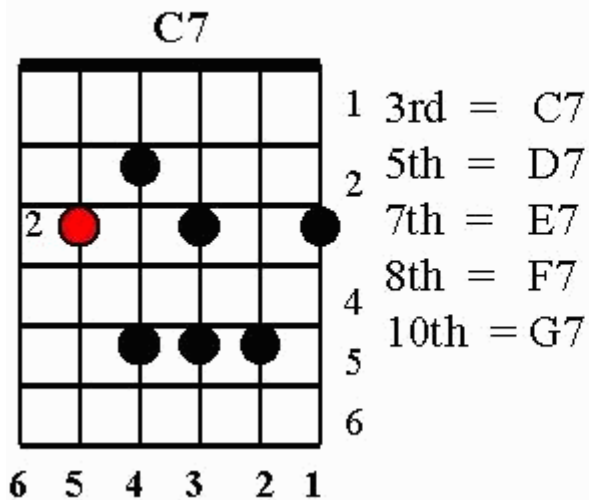


C Seventh Arpeggio (C7)



C Minor Seventh Arpeggio (Cm7)

 Root of Arpeggio



Arpeggio Study: 07

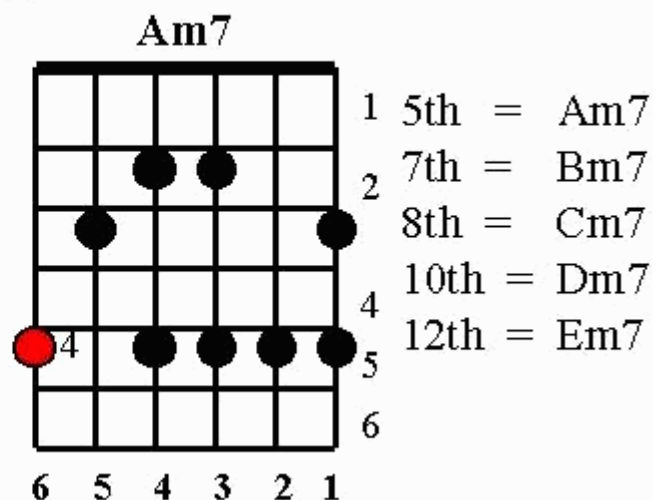
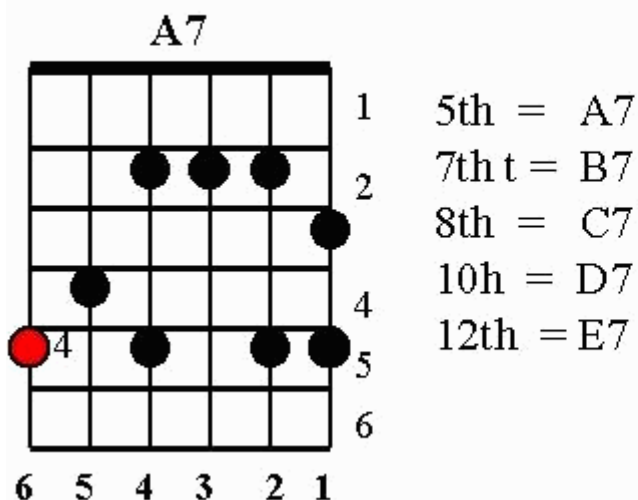


A Seventh Arpeggio (A7)



A Minor Seventh Arpeggio (Am7)

 Root of Arpeggio



Arpeggio Study: 08 ➡

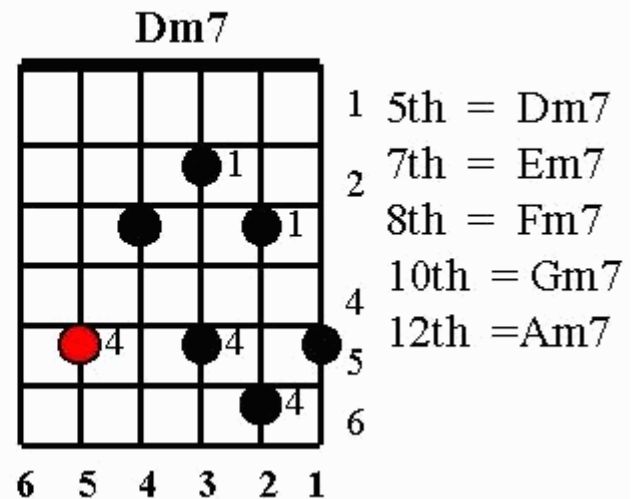
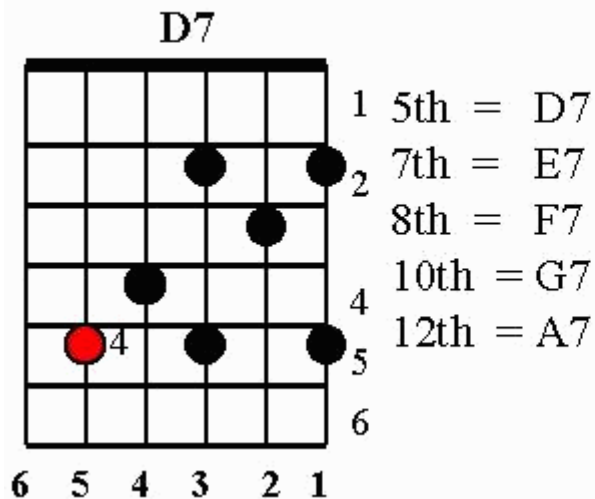


[D Seventh Arpeggio \(D7\)](#)



[D Minor Seventh Arpeggio \(Dm7\)](#)

● Root of Arpeggio



Arpeggios

Chord Structures

This page provides a review of chord substitution theory. Arpeggios, following the form of basic chords, can also utilize basic substitution theory. What applies to chord forms may well apply to the associated arpeggios. In general we associate chord structures that have multiple chord tones in common with each other. The two diagrams review structures associated with the key of C major. You may want to build like diagrams for additional key signatures. This material will take dedication and perseverance to master. Stick to it, knowledge is a powerful tool. In the examples below we have used the extended forms of the basic chord structures. This diagram outlines the chord groups built on the scale of C major. No sharps or flats are included.

Degree	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th
	C	D	E	F	G	A	B
Cmaj7	●		●		●		●
Dm7	●	●		●		●	
Em7		●	●		●		●
Fmaj7	●		●	●		●	
G7		●		●	●		●
Am7	●		●		●	●	

I	Cmaj7	C	E	G	B	
III7	Em7		E	G	B	D
VI7	Am7	C	E	G	A	
V7	G7	G	B	D	F	
VII	Bdim		B	D	F	A
II7	Dm7	D	F	A	C	
IV	Fmaj7		F	A	C	E

The diagram above illustrates the chord tone relationship between chord groups. Each group has 3 chord tones in common. Use this relationship in new chord substitution and in single string solo development.

From the diagram we see the relationship of the III7 and VI7 chords to the I or tonic chord "C". We also see the relationship between the II7 and IV chords, and the VII chord and the V7 chord.

II7 - V7	Flat-5	Direct	Advanced
Introduction II7-V7 Set 1 II7-V7 Set 2	Introduction Flat-5	Introduction Scale Wise I Scale Wise II	Introduction Chord Theory Be Creative

[II7-V7 Set 3](#)
[II7-V7 Set 4](#)
[Jazz Theory I](#)

[Set 1](#)
[Flat-5](#)
[Set 2](#)
[Flat-5](#)
[Set 3](#)
[Flat-5](#)
[Set 4](#)
[Jazz](#)
[Theory 2](#)

[Chromatic](#)
[Summary](#)
[Jazz Theory 3](#)

[Cycle 4-5ths](#)
[Scales/Chords](#)
[Fingerboard](#)

Substitution techniques provide color to standard chord progressions. These techniques should be mastered in all keys, up and down the fingerboard. The challenge is to play these techniques as smoothly and automatic as possible. These forms will become second nature to you with a little dedication.

Chord Substitution Studies

II7 - V7 Introduction Part One



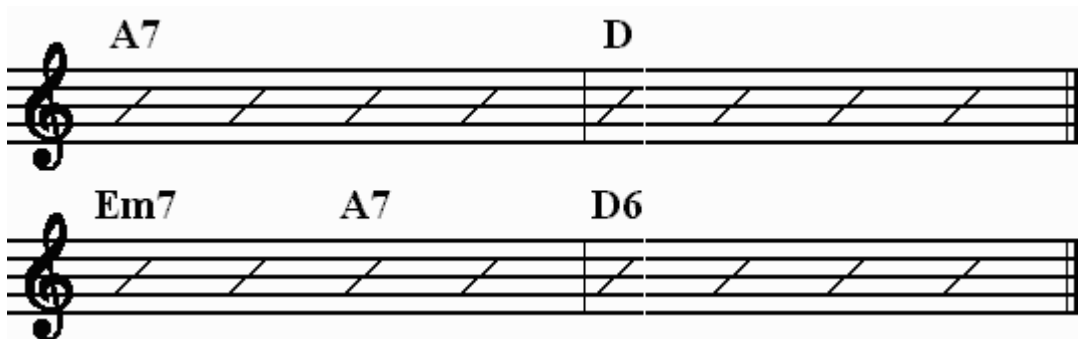
The II7 – V7 chord substitution is very popular, and for several good reasons. First it can be applied in any style of music. Be it Rock, Jazz, Country, or any other flavor. The basic formula does not change. Once you learn the basic combinations they can be applied in almost every key. After a short period of time they become automatic. You will play the II7 – V7 substitution without giving it any thought at all. The diagram below illustrates the II7 – V7 combinations in a variety of key signatures. The beauty of this technique is that it can be applied whenever the Dominant 7th to Tonic progression is called for. That indicates that whenever that progression is called, even in a different key, the technique is applicable.

Key	II7	V7	Tonic
A	Bm7	E7	A
Bb	Cm7	F7	Bb
C	Dm7	G7	C
D	Em7	A7	D
Eb	Fm7	Bb7	Eb
E	F#m7	B7	E
F	Gm7	C7	F
G	Am7	D7	G

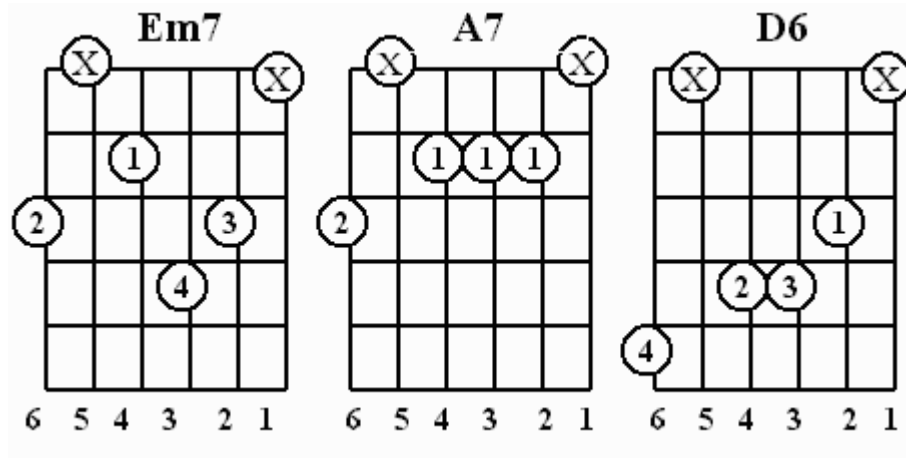
Chord Substitution Studies

II7 - V7 - Set Three

In the example below the first staff is the original chord change. The second staff illustrates adding the Sub-dominant 7th (Em7) prior to playing the Dominant 7th (A7). The selected Dom. 7th form is very handy and useful.



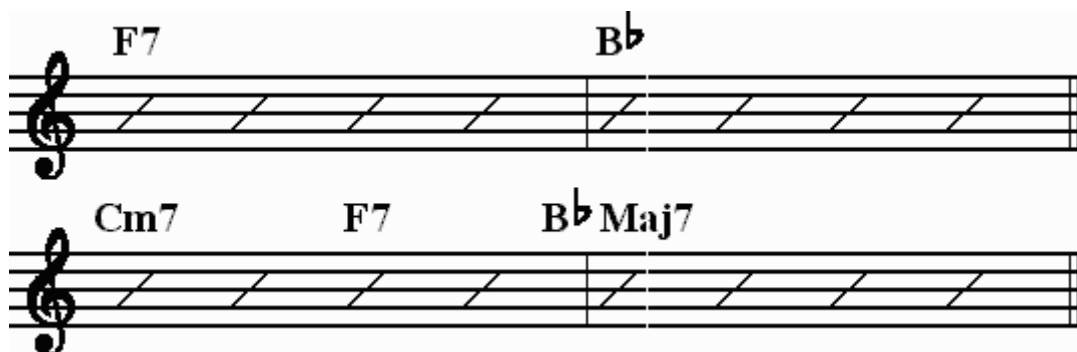
The image shows two musical staves illustrating chord substitutions. The first staff shows a progression from A7 to D. The second staff shows a progression from Em7 to A7 to D6. The chords are written above the staves, and the staves themselves contain diagonal lines representing the chords.

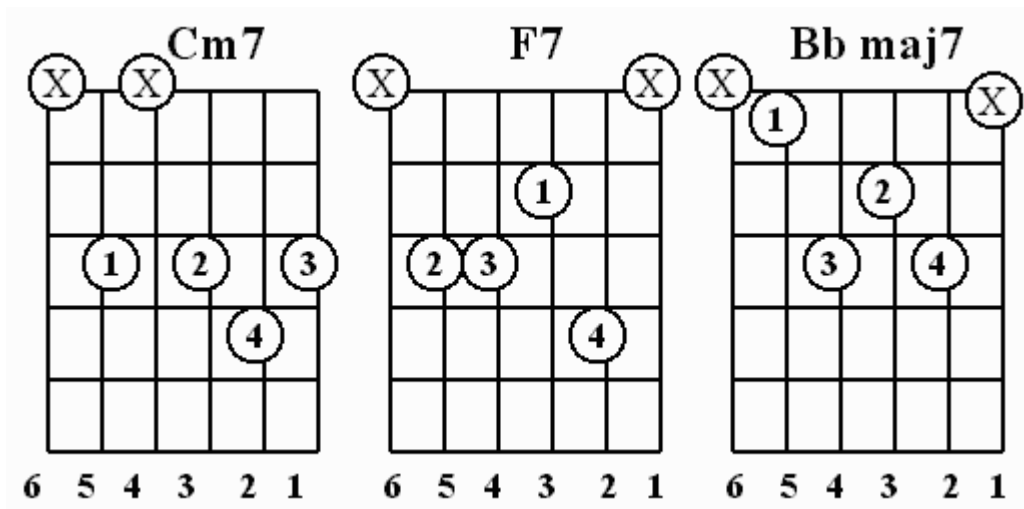


Chord Substitution Studies

II7 - V7 - Set Four ➡

In the example below the first staff is the original chord change. The second staff illustrates adding the Sub-dominant 7th (Cm7) prior to playing the Dominant 7th (F7). The selected Dom. 7th form is very handy and useful.





Chord Substitution Studies

Flat-Five Intro Part One ➡

Learning and applying the Flat-Five technique is interesting and very valuable. When combined with the II7 – V7 technique it produces a very powerful and useful tool. Using these techniques allows you to build chord patterns that are unique to your style and musical taste.

As with other techniques, the Flat-Five technique will become automatic in a short period of time. Combining various techniques takes a little longer, but will happen. This series of four studies illustrates using the technique alone and with the II7-V7 technique. In that manner a greater appreciation for the power and versatility of the technique can be explored.

As the name implies, the process uses the lowered (flat) 5th degree of the Dominant 7th chord to build a new complementary Dominant 7th chord. The diagram below illustrates common Dominant 7th chords and the associated Flat-Five Dominant 7th chord type. Once memorized, they never change.

Tone Center	Dom. 7th	II7 Chord	Flat-5 Chord
D major	A7	Em7	Eb7 - (Eb9)
Eb major	Bb7	Fm7	E7 - (E9)
E major	B7	F#m7	F7 - (F9)
F major	C7	Gm7	F#7 - (F9)
G major	D7	Am7	Ab7 - (Ab9)
Ab major	Eb7	Bbm7	A7 - (A9)
A major	E7	Bm7	Bb7 - (Bb9)
Bb major	F7	Cm7	B7 - (B9)
C major	G7	Dm7	Db7 - (Db9)

Chord Substitution Studies

Flat-Five Intro Part Two

Yes, the chart looks a little complicated. Once we begin the four technical studies the combinations will become second nature in a short period of time. Your fingers will remember the combinations and play them without much thought. The patterns do not change. What changes is your selection and application of the technique.

To further understand the relationship between the II7 – and Flat-Five techniques let's take a look at the actual construction of these chords. You will be surprised by the small note changes that result. This close association

provides a smooth and melodic series of chord changes.

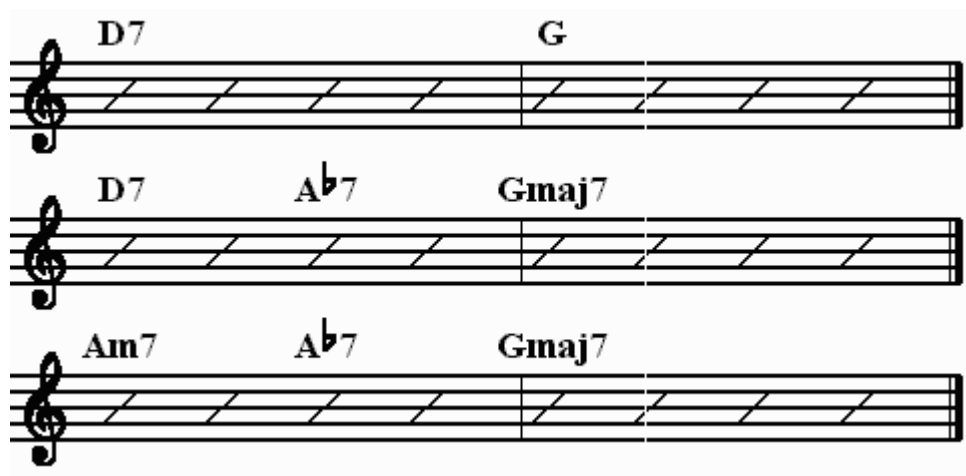
II7 (C Major)	Flat-Five	Tonic
Dm7	Db7	C maj 7
C	Cb (B)	B
A	Ab	G
F	F	E
D	Db	C

Notice the minimal note movement to the Tonic (C maj7) chord. You will hear these changes as a smooth natural chord progression.

Chord Substitution Studies

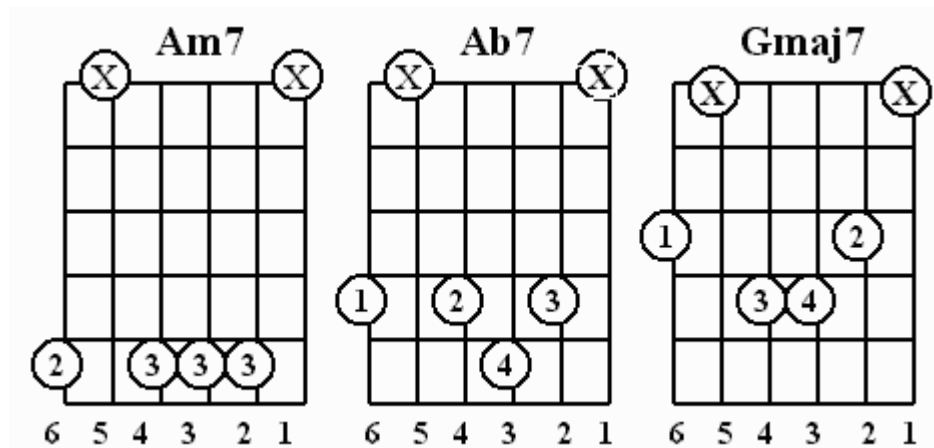
Flat-Five Substitution Part One

In the example below the first staff is the original chord change. The second staff illustrates adding the Flat-5 substitution (Ab7) after the playing the Dominant 7th (D7). The third staff eliminates the Dom. 7th - Using only the II7 and Flat-5 substitution changes.



The image shows three musical staves, each with a treble clef and a key signature of one flat (Bb). The staves are divided into two measures by a vertical line.

- Staff 1:** The first measure contains a D7 chord, and the second measure contains a G chord. Both measures are filled with diagonal lines, indicating a whole-note chord.
- Staff 2:** The first measure contains a D7 chord. The second measure contains an Ab7 chord, followed by a Gmaj7 chord. Both measures are filled with diagonal lines.
- Staff 3:** The first measure contains an Am7 chord. The second measure contains an Ab7 chord, followed by a Gmaj7 chord. Both measures are filled with diagonal lines.

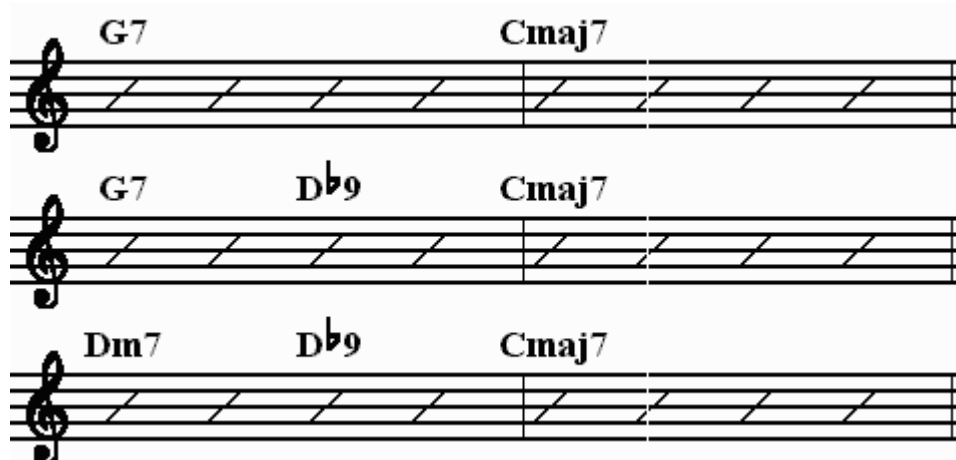


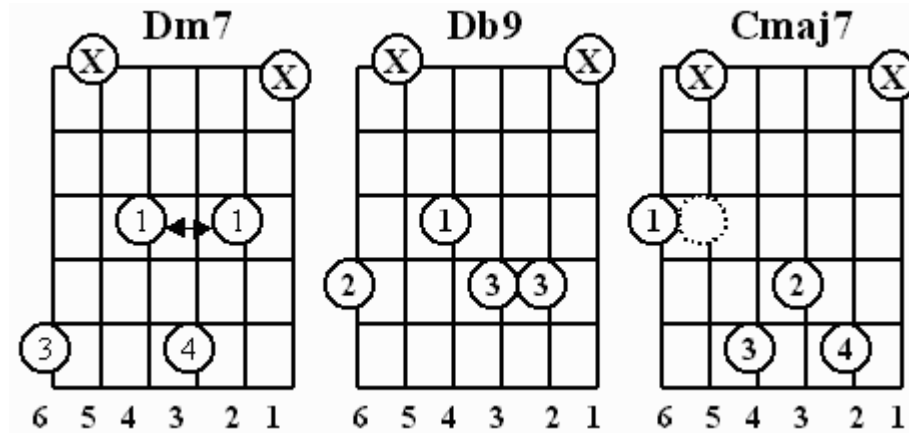
Chord Substitution Studies

Flat-Five Substitution Part Two



The first staff is the original chord change. The second staff adds the Flat-5 (Db9) after the playing the Dominant 7th (G7). The third staff eliminates the Dom. 7th - using only the II7 and Flat-5 substitution changes.



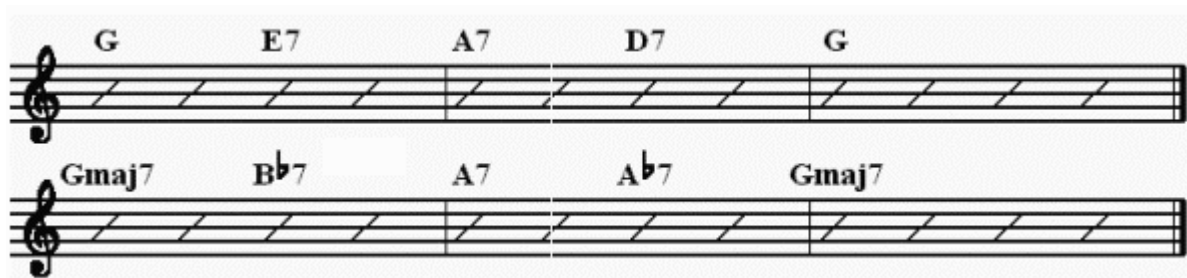


Chord Substitution Studies

Flat-Five Substitution Part Three



The first staff contains a standard (Cycle of Fourths) progression. The second staff illustrates using the Flat-5 technique to create an interesting bass line back to the tonic chord (G).



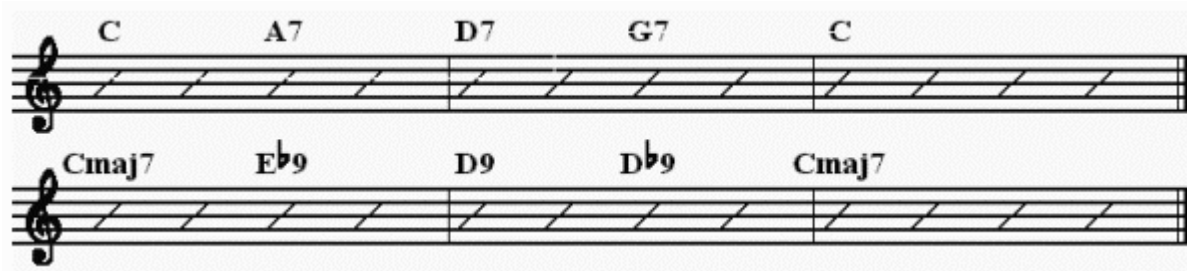
Now isn't that slick? This study illustrates the creative potential for the Flat-5 technique. In the example above, two substitutions were made. The first is using Bb7 in place of E7 and then using Ab7 in place of D7. The A7 chord was not altered. Create your own chord patterns and apply the technique.

Chord Substitution Studies

Flat-Five Substitution Part Four



The first staff contains a standard (Cycle of Fourths) progression. In the second staff the Flat-5 technique is used on the A7 and G7 changes to create a descending Dominant 9th progression.



In the example above a series of Dominant 9th chords created an unusual and very effective progression. The Flat-5 technique was applied to the A7 and G7 chords. The D7 was just changed to a Dominant 9th. Experiment with other progressions and work out your own variations. It's fun to try and great when you get it just perfect. Good Luck - Perry Terhune

Chord Substitution Studies

Scale Wise Introduction

This section covers Scale Wise and Chromatic substitution techniques. These clever techniques are not theoretical. They are more of a practice than a theory. Previously we have reviewed the II7-V7 and the Flat-5 techniques. They are theoretical studies, based on scale and chord structures. Here we simply apply a given chord sequence when and if applicable. Scale Wise Substitution: As the name suggests this technique will follow a scale wise pattern. Predominately, the pattern will follow (I – II7 – I7) progression. This technique is most effective when moving from the Tonic (I) to the Dominant7th (V7) and return to the Tonic. The diagram below illustrates this concept in several common keys. Selecting the appropriate chord for use is usually based on the required bass note pattern.

Technique Illustration

Key	Tonic	II7	III7	IIIb7	II7	Flat-5	Tonic
G	G6	Am7	Bm7	Bbm7	Am7	Ab7	GM7
C	C6	Dm7	Em7	Ebm7	Dm7	Db9	CM7
F	FM7	Gm7	Am7	Abm7	Gm7	F#7	FM7

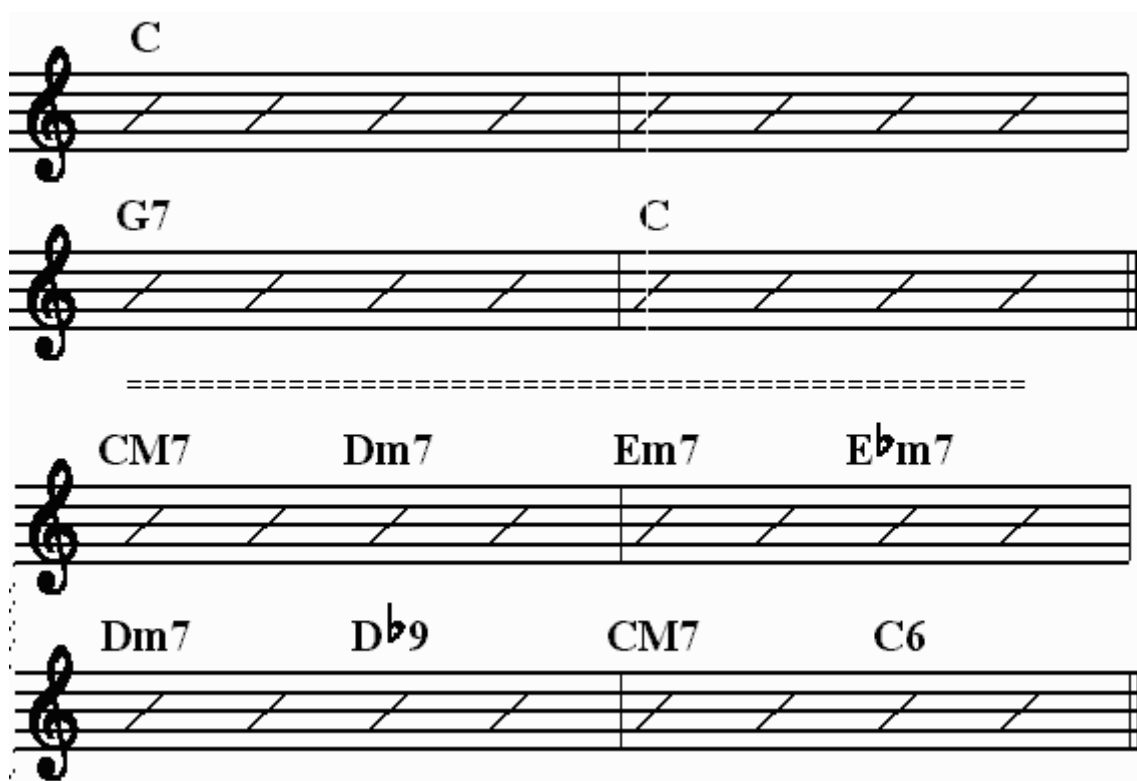
Bb	Bb6	Cm7	Dm7	Dbm7	Cm7	B7	BbM7
----	-----	-----	-----	------	-----	----	------

When combined with the II7-V7 and Flat-5 techniques this is a powerful and versatile addition. Numerous examples of "Inline" substitution are displayed within the four study pages. Inline substitution provides the vehicle to use various chords of the same type as the original chord. This can be applied to all chords in all keys. The test is the sound – if it sounds bad – don't use it. If it enhances the sound – use it. All in all it is a matter of choice and taste. These techniques may work 70% - 80% of the time. That's what makes substitution so interesting. The last word is yours. Like it – use it. Don't like it – forget about it.

Chord Substitution Studies

Substitution - Scale-Wise Concept

The first two staves illustrate a common I, V7, I chord progression (C - G7 - C). In the second set of staves a scale-wise minor 7th series of chords adds life and color to the standard progression.



The musical notation consists of four staves, each with a treble clef and a key signature of one flat (Bb). The first staff is labeled 'C' and contains a whole note chord. The second staff is labeled 'G7' and contains a whole note chord. The third staff is labeled 'C' and contains a whole note chord. A dashed line separates the first two staves from the next two. The fourth staff is labeled 'CM7' and contains a whole note chord. The fifth staff is labeled 'Dm7' and contains a whole note chord. The sixth staff is labeled 'Em7' and contains a whole note chord. The seventh staff is labeled 'Eb7' and contains a whole note chord. The eighth staff is labeled 'Dm7' and contains a whole note chord. The ninth staff is labeled 'Db9' and contains a whole note chord. The tenth staff is labeled 'CM7' and contains a whole note chord. The eleventh staff is labeled 'C6' and contains a whole note chord.

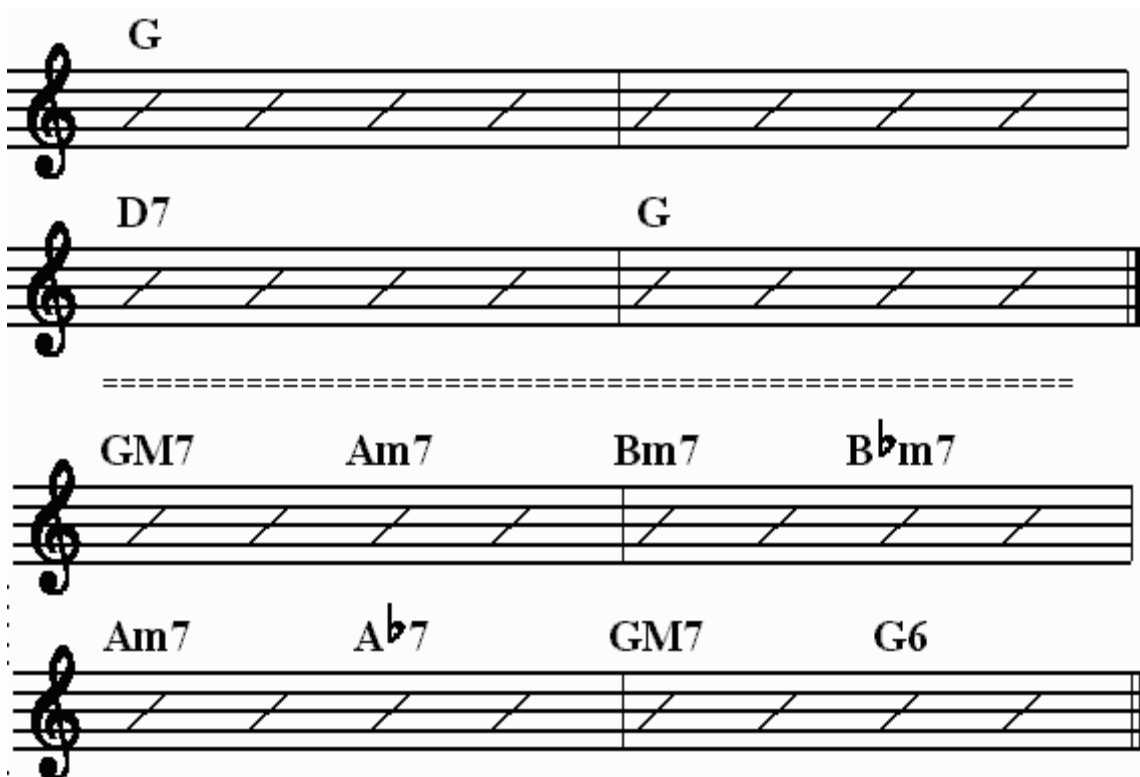
Notice the use of the Dm7 (the II7-V7 substitute for G7). And then the Flat-5

substitute (Db9) is used for the G7 chord. A "Direct" substitution (CM7 and C6) is used for the standard C chord. The combination is interesting and will work well in/on many standard melodies.

Chord Substitution Studies

Substitution - Scale Wise Two

The first two staves illustrate a common I, V7, I chord progression (G - D7 - G). In the second set of staves a scale wise minor 7th series of chords adds life and color to the standard progression.



The musical notation consists of four staves, each with a treble clef and a key signature of one sharp (F#). The first staff contains a single G chord. The second staff contains a D7 chord followed by a G chord. A dashed line separates this from the next two staves. The third staff contains four chords: GM7, Am7, Bm7, and Bbm7. The fourth staff contains four chords: Am7, Ab7, GM7, and G6.

Notice the use of the Am7 (the II7-V7 substitute for D7). And then the Flat-5 substitute (Ab7) is used for the D7 chord. A "Direct" substitution (GM7 and G6) is used for the standard G chord.

Chord Substitution Studies

Substitution - Chromatic

The first two staves illustrate the last four measures of a standard "G" Blues progression. It is also very popular in Rock and modern Country tunes. It is a simple V7 - IV7 - I7 - V7 progression. Isn't this interesting? In the second set of staves we have applied "Direct" substitution (using D7sus and D7-5) for the standard original D7 chord. The same pattern is repeated for the original C7 chord.

The image displays musical notation for a G Blues progression across four staves. The first two staves show the standard progression: D7, G7, C7, D7. The next two staves show the substituted progression: D7sus, D7-5, C7sus, C7-5. The final staff shows a chromatic progression: G7, Bm7, Bbm7, Am7, Ab7.

In the last staff Bm7 is used leading to Bbm7 to Am7. This is a **chromatic** (half-step) progression. You may select to use a Bm7-5 chord for the Bm7 chord. The key is the Bm7, forming the descending bass line. Bm7-5 is, or can be considered, a G9 chord without a root tone. (A given minor 7-5 chord built on the III degree of any major scale is also a Tonic 9th chord and can be substituted for the original chord. So... C9 = Em7-5(NR), F9 = Am7-5(NR), Bb9 = Dm7-5(NR), and so forth. This is considered a direct substitution. Now isn't that cool?

In the last measure the Am7 is the first part of a II7-V7 substitution (Am7-D7). We have omitted the V7 and replaced it with the Flat-5 substitution Ab7. It would be appropriate to print this page and then work out like changes in a variety of keys. It will be fun and very helpful in the learning process.

Chord Substitution Studies

Substitution - Summary Chart



The first section contains a standard version of the popular "Blues" progression. This is just one of many variations of the progression. Some use all 7th chords - others omit the first C7 chord in measure two. But in general they are all alike.

The image displays two sets of musical staves, each containing four staves. The first set shows a standard 12-bar blues progression in G major. The second set shows a more complex progression with various substitutions.

First Set (Standard Blues Progression):

- Staff 1: G7, C7, G
- Staff 2: G7, C7, C7
- Staff 3: G, G, D7
- Staff 4: C7, G7, D7

Second Set (Complex Progression):

- Staff 1: G7, D $\flat$ 9, C9, G6
- Staff 2: Dm7, D $\flat$ 9, C9, Gm7, C9
- Staff 3: Gmaj7, Am7, Bm7, B $\flat$ m7, Am7, D9
- Staff 4: Gm7, C9, G7, Bm7, B $\flat$ m7, Am7, A $\flat$ 7

Play through the chord changes illustrated in the second set of staves. Within this study are "Direct Substitution", "II7-V7 Substitution", and "Flat-5 Substitution" techniques. See if you can identify the various types of substitution techniques. It may be helpful to print this page and then transcribe the changes to several different keys. Please keep in mind that Bm7-5 can be used for the Bm7 in the example. Bm7-5 = G9(NR). Remember that substitution is a very subjective craft. You use what sounds good to you. With a little dedication these techniques will become almost

automatic. Learn it well, it will last a lifetime.

Chord Substitution Studies

Chords - Sales Introduction - Part One



Developing a comprehensive knowledge base and appreciation for Chords is essential to venture into the world of jazz guitar. For that matter, it is essential for any musician on any instrument. Chords and Scales form the foundation of our music structure. Jazz, by definition, extends the boundaries and concepts of conventional theory. The more we understand our roots the easier the journey to jazz excellence will be. With that in mind, lets explore the elements of Chords that will assist us in our journey.

Chord Foundations

Chords are derived from the various degrees of scale structures. For example: the "C" scale has seven unique degrees (or tones). They are: C, D, E, F, G, A, B, and C (Octave). Chords are generated from each degree of this scale. Specific names are assigned to each chord generated from this scale. It is appropriate to learn and utilize this terminology. The chords are expressed in Roman Numerals. The assigned terminology and structure is:

I	1st degree	Tonic Chord	C	E	G	Major	Triad
II	2nd degree	Super Tonic	D	F	A	Minor	Triad
III	3rd degree	Mediant Chord	E	G	B	Minor	Triad
IV	4th degree	Sub-Dominant	F	A	C	Major	Triad
V	5th degree	Dominant	G	B	D	Major	Triad
VI	6th degree	Sub-Mediant	A	C	E	Minor	Triad
VII	7th degree	Leading Tone	B	D	F	Dim.	Triad

Chord Substitution Studies

Chords - Sales Introduction - Part Two



Triads are the basic chords derived from the scale structure. Triads are constructed in the following manner. This pattern never changes.

Major Triad Root Major 3rd Minor 3rd

Minor Triad Root Minor 3rd Major 3rd

Diminished Triad Root Minor 3rd Minor 3rd

These concepts are illustrated in the sample matrix below

Scale	I	II	III	IV	V	VI	VII	Comment
C major	C	Dm	Em	F	G	Am	Bdim	0 #, 0 b's
G major	G	Am	Bm	C	D	Em	F#dim	1#, 0b's
D major	D	Em	F#m	G	A	Bm	C#dim	2#s, 0b's
F major	F	Gm	Am	Bb	C	Dm	Edim	0#'s, 1 b
Bb major	Bb	Cm	Dm	Eb	F	Gm	Adim	0#'s, 2 b's

The 2nd, 3rd, and 6th degree chords are always minor

The 1st, 4th, and 5th degree chords are always major

The 7th degree chord is always diminished (later it will be m7-5)

Chord Substitution Studies

Chord Substitution Theory - One



This page provides a review of chord substitution theory. In general we associate chord structures that have multiple chord tones in common with each other. The two diagrams review structures associated with the key of C major. You may want to build like diagrams for additional key signatures. This material will take dedication and perseverance to master. Stick to it, knowledge is a powerful tool. In the examples below we have used the extended forms of the basic chord structures. This practice will be discussed later in this section.

This diagram outlines the chord groups built on the scale of C major. No sharps or flats are included. We will use this information to build chord groups on this and the following page.

Degree	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th
	C	D	E	F	G	A	B
Cmaj7	●		●		●		●
Dm7	●	●		●		●	
Em7		●	●		●		●
Fmaj7	●		●	●		●	
G7		●		●	●		●
Am7	●		●		●	●	
B dim		●		●		●	●

The diagram to the right illustrates the chord tone relationship between chord groups. Each group has 3 chord tones in common. Use this relationship in new chord substitution and in single string solo development.

I	Cmaj7	C	E	G	B	
III7	Em7		E	G	B	D
VI7	Am7	C	E	G	A	
II7	Dm7	D	F	A	C	
IV	Fmaj7		F	A	C	E
V7	G7	G	B	D	F	
VII	Bdim		B	D	F	A

Chord Substitution Studies

Chord Substitution Theory - Two



From the previous diagram we saw the relationship of the III7 and VI7 chords to the I or tonic chord "C". We also saw the relationship between the II7 and IV chords, and the VII chord and the V7 chord. This relationship is expanded in the diagram below. In the diagram we have added the II7 chord as a substitute for the Dominant 7th or 9th chord.

KEY	C	D	Eb	F	G	Ab	Bb
I	Cmaj7 Em7 Am6	Dmaj7 F#m7 Bm7	Ebmaj7 Gm7 Cm7	Fmaj7 Am7 Dm7	Gmaj7 Bm7 Em7	Abmaj7 Cm7 Fm7	Bbmaj7 Dm7 Gm7
IV	Fmaj7 Dm7 Am7	Gmaj7 Em7 Bm7	Abm7 Fm7 Cm7	Bbmaj7 Gm7 Dm7	Cmaj7 Am7 Em7	Dbmaj7 Bbm7 Fm7	Ebmaj7 Cm7 Gm7
V7	G7-9 th Bdim Dm7	A7-9 th C#dim Em7	Bb7-9 th Ddim Fm7	C7-9 th Edim Gm7	D7-9 th F#dim Am7	Eb7-9 th Gdim Bbm7	F7-9 th Adim Cm7

Chord Substitution Studies

Creative Chords - Part One

This page illustrates several applications of creative chord substitution. Four diagrams are presented. Each diagram the original chord sequence, the beat associated with the chord, and the substitution for the original sequence. This is the application of Chord/Scales Relatives. Passing chords are used to smoothly connect the changes (Bm7–Bbm7–Am7). In this example the Bbm7 is a passing chord.

G								
Beat 1	Beat 2	Beat 3	Beat 4	Beat 5	Beat 6	Beat 7	Beat 8	Beat 9
Gmaj7		Bm7	Bbm7	Am7	Eb9	D9	Ab7	Gmaj7

In the illustration above "G" is the original chord and is played for all nine beats. The substitute (including relative chords) line offers an interesting alternative to the rather boring original line. And, they are fun to play.

Several more examples and illustrations are provided on the next page.

Chord Substitution Studies

Creative Chords - Part Two

The illustration below presents a very common original chord line. (G–G7–C)
The substitute line brings you to the "C" chord ending with a little originality.

G				G7				C
Beat 1	Beat 2	Beat 3	Beat 4	Beat 5	Beat 6	Beat 7	Beat 8	Beat 9
Gmaj7		Em7	Ebm7	Dm7	Ab7	G7	Db9	Cmaj7

Now we will try to enhance a long "C" sequence.

C								
Beat 1	Beat 2	Beat 3	Beat 4	Beat 5	Beat 6	Beat 7	Beat 8	Beat 9
Cmaj7		Em7	Ebm7	Dm7	Ab7	G7	Db9	Cmaj7

The pattern presented in the two "G" sequenced is repeated in "C"

C				C7				F
Beat 1	Beat 2	Beat 3	Beat 4	Beat 5	Beat 6	Beat 7	Beat 8	Beat 9
Cmaj7		Em7	Ebm7	Dm7	Ab7	G7	Db9	Cmaj7

Once you become familiar with the "G" and "C" sequences try to figure them out in "F", "Bb", "Eb", and "D". It will take a little work but it will be worth every minute. Good Luck

Chord Substitution Studies

Chord Substitution Theory - Five



This study page presents the Cycle of 4ths and the Cycle of 5ths in a unique and abbreviated manner. The intent is to produce a functional document that can be utilized by all levels of guitarists. Eight of the most popular Key structures are included within the diagram. Please note, the Cycle of 4ths runs left to right and the Cycle of 5ths runs right to left. In addition, the chords are presented in popular extended forms (Cm7–C6).

Cycle of 4ths >>>>>>> ----- <<<<<<< Cycle of 5ths

Tonic	A	D	G	C	F	Bb	Eb	Ab
I	A6	D6	G6	C6	F6	Bb6	Eb6	Ab6
II	Bm7	Em7	Am7	Dm7	G	Cm7	Fm7	Bbm7
III	C#m7	F#m7	Bm7	Em7	Am7	Dm7	Gm7	Cm7
IV	D6	G6	C6	F6	Bb6	Eb6	Ab6	Db6
V	E7	A7	D7	G7	C7	F7	Bb7	Eb7
VI	F#m7	Bm7	Em7	Am7	Dm7	Gm7	Cm7	Fm7
VII	G#dim7	C#dim7	F#dim7	Bdim7	Edim7	Adim7	Ddim7	Edim7
Octave	A	D	G	C	F	Bb	Eb	Ab

Chord Substitution Studies

Chord Substitution Theory - Six



Please note that the diagram above uses the Diminished 7th as the VII chord.

It is also appropriate to use the m7-5 or Half-Diminished chords for this position. Within the Guitar Masters' study "Chords/Scales Relatives" Common relationships between primary Keys and the relative minor scales was established. If we examine the illustration above we can see the wide variety of scales (thus chords also) that are shared between two or more key signatures. For example, Am7 is part of the C, G, and F family of chords.

When changing Keys with a composition select the "chord" that both keys have in common. For example, Key of "C" to the key of "G" the common chord is Am7. Play the Am7 and then the Dominant 7th (or Flat 5th) in the new key (G). C6–Am7–D7–G6 or C6–Am7–Ab7–G6.

We know the **I** and **III** and **VI** degree chords are interchangeable in most cases. Therefore, use that knowledge to create smooth flowing chord changes. Passing chords are also very helpful in this practice. For example if you are going from "C"–"C7"– to F (very common). use a combination like (C6–Am7–Abm7–Gm7–F#7–F6) Now that's smooth. Take your time, work one key at a time to get the feel and sound of these changes. Good Luck

Chord Substitution Studies

Scales and Chords - Part One

An interesting and essential relationship exists between the basic key related scale and the chords associated with the key. A review of the primary scale and/or key signatures is presented below. This relationship should be studied and available for practical application and future use.

Key	#	Sharps	Key	b	Flats
C	0		C	0	
G	1	F#	F	1	Bb
D	2	F#, C#	Bb	2	Bb, Eb
A	3	F#, C#, G#	Eb	3	Bb, Eb, Ab
E	4	F#, C#, G#, D#	Ab	4	Bb, Eb, Ab, Db
B	5	F#, C#, G#, D#, A#	Db	5	Bb, Eb, Ab, Db, Gb
F#	6	F#, C#, G#, D#, A#, E#	Gb	6	Bb, Eb, Ab, Db, Gb, Cb

Major	Minor	I	IV	V7	Each major key has a relative minor key associated with it. This relationship is very strong. So strong that we can interchange the I and IV chords in both directions. Or exchange scales and arpeggios. <i>Very helpful</i>
C Major	A Minor	Am	Dm	E7	
D Major	B Minor	Bm	Em	F#7	
E♭ Major	C Minor	Cm	Fm	G7	
F Major	D Minor	Dm	Gm	A7	
G Major	E Minor	Em	Am	B7	
A♭ Major	F Minor	Fm	Bbm	C7	
B♭ Major	G Minor	Gm	Cm	D7	

Chord Substitution Studies

Scales and Chords - Part Two

I	II7	III7	IV	V7	VI7	VIII	I
Tonic	Min7	Min7	6th	Dom 7	Min7	Dim	Tonic
Cmaj7	Dm7	Em7	F6	G7	Am7	B dim	Cmaj7
Dmaj7	Em7	F#m7	G6	A7	Bm7	C#dim	Dmaj7
Ebmaj7	Fm7	Gm7	Ab6	Bb7	Cm7	Ddim	Ebmaj7
Emaj7	F#m7	G#m7	A6	B7	C#m7	D#dim	Emaj7
Fmaj7	Gm7	Am7	Bb6	C7	Dm7	Edim	Fmaj7
Gmaj7	Am7	Bm7	C6	D7	Em7	F#dim	Gmaj7
Abmaj7	BbM7	Cm7	Db6	Eb7	Fm7	Gdim	Abmaj7
Amaj7	Bm7	C#m7	D6	E7	F#m7	G#dim	Amaj7
Bbmaj7	Cm7	Dm7	Eb6	F7	Gm7	Adim	Bbmaj7
or	or	or	or	or	or	or	or
6th	m9th	min9th	Maj7th	9th	Min9th	7-9	6th

The chart above reviews the chords associated with a variety of common key signatures. The chords noted are "extended" from the basic or primary triads. An analysis of these scales and chords would explain why we can and do interchange Am7 for C6, Cm7 for Eb6 or Dm7 for G9, Gm7 for C9. We can do this with chords, arpeggios, fills, or scales. Give it

a try, you will love it.

Chord Substitution Studies

Introduction To Jazz Theory

Guitar Masters is proud to present this detailed perspective of Jazz Theory. Originally titled "**On Scales, Chords, and Progressions**", this essay was produced and developed by Clif Kuplen. Mr. Kuplen created and developed the "**Fingerstyle Jazz Guitar**" website. You may obtain the original document in its entirety by visiting his fine homepage.

<http://members.aol.com/jurupari/index.htm>

Chapter One: Introduction To Jazz Theory

As has been the case with many performing musicians, I have been frequently asked questions regarding scales or chords by aspiring jazz musicians who are at or near the beginning of their musical journey. Usually, these questions are on the order of what scale to use to improvise over a particular progression of chords, or what scale best fits a certain type of chord, such as a dominant 7th or a minor 9th.

Diatonic Scale

First, what type of scales to use against chords found in western harmony, be it compositional music, commercial music or jazz does have an answer, or more properly, a series of answers. For the scales, start with the white keys on the piano, or the **Diatonic Scale**. As you probably know, this scale consists of three whole steps, then a half step. Go up one step and repeat the pattern, and there you have it: **C, D, E, F, G, A, B**, and, of course repetition of **C** at the octave.

Melodic and Harmonic minors

There are two other scales that are fundamentally the same as the major scale, but with the alteration of just one note. The first is called the **melodic or jazz minor scale**. It may be created on the white keys by lowering the

note E to Eb and playing the others intact. Next is the **harmonic minor** scale, which may be heard by starting on the note A but raising the note G to G#.

Although there are others, the backbone of Western harmony since temperament of the musical scale has relied most heavily on sound that may be generated from these three scales. This is equally true of **polyphonic** music, although its method of composition creates harmony secondarily from melody and counter-melodies.

The Pentatonic Scale

As to other needed scales, it is a good idea to be conversant with the **pentatonic** scale, which consists of the notes C, D, E, G, and A only. There are minor pentatonic scales as well, but inverting the C pentatonic will also make this scale useful against minor chords as it stands.

Symmetric Scales

Finally, there are the **symmetric** scales, so called because of their repetition of certain intervals. The three that are most particularly useful are the **whole-tone**, played as C, D, E, F#, G#, A#; the **diminished** which is created by alternating half step and whole step intervals, as for example, C, D, Eb, F, Gb, Ab, A, and B.

The last symmetric scale is called the **augmented** scale, and it consists of half step and minor third (step and a half) intervals. (C, Eb, E, G, Ab and B) This scale has particular value in creating tension and then resolution by weaving in and out of harmony in some situations, and reflection of complex chords in others.

To summarize, the scales needed to outline or describe most harmonic situations encountered in European and American music are the **major, melodic minor, harmonic minor, pentatonic, diminished, whole tone, and augmented** scales.

How do you use them?

Well, this question is better answered after we've taken a closer look at chords and progressions. As you have probably already discovered, just playing a scale with some facility over a chord or progression is of limited musical use, as the listener will soon be able to predict the sequence of notes and lose some interest in the music, and your performance of it.

Chord Substitution Studies

Introduction To Jazz Theory II

Chapter Two: Chords – What are they?

Good question! From a historical point of view, what is presented in this text would be misleading and inaccurate. Music certainly did not start with a tempered scale and the white keys on the piano! However, for the purposes of understanding, writing and playing music what is presented here should help. Just remember that this is all hindsight.

First, how do we get chords?

We can start with the major scale or the white keys on the piano. As you will recall, there are seven different notes. If we were to play three or more of these notes simultaneously, we would have a number of different tones associated with each other at the same time. Would these be chords? Would they be useful musically? The answer to both is yes, but a little organization would be helpful.

If you play already, you probably know that a three-note chord is called a **triad** and that it has a **root, third and fifth** tone. Four-note chords are called **sixths and sevenths** and have the root, third, fifth, and sixth or seventh tone. They may be major or minor, depending on whether the third tone is a step and half or two steps higher than the root. What does this mean? Read on.

Diatonic Chords

For purposes of finding useful musical stuff, let's consider the major scale again. However this time, let's try playing four notes simultaneously. Also, for our purposes here, let's extend the scale up one more octave.

Now, let's give the notes numbers, starting with C as one. D would become 2 in the first octave, and 9 in the second (count and see, if you find this confusing), and E becomes 3 and 10, F becomes 4 and 11, and so on. Are you getting why four note chords are called 7th or 6th chords yet?

Now let's play the first third fifth and seventh tones all at once. What you get are the notes C, E, G, and B. The sound is usually described as restful, and consonant. It is called a C major seventh chord. It's major because there's a two step (Major) interval between the root, C and the third, E. It's a seventh chord because it adds the seventh

tone of the scale, B.

Don't stop there. You noticed that C, E, G, and B are also every other note of the scale, since you skipped over D, F and A. Using the same "every other note" formula, start on D, playing D, F, A, and C.

What you're hearing is a *minor seventh* chord. It's minor because there is only a step and a half (**a minor interval**) between the new root, D and the third tone, F. As before, it's a seventh because **C** is seven scale tones away from **D**. Its **sonority**, or sound, is usually described as being more restless than the major seventh chord. It requires eventual resolution to some other chord. (That would be a chord **progression**, which we will also examine later.)

Repeating at E gives you another restless minor seventh chord. From F, you get another major 7th chord, and from G you get something new. The chord at G has a major third at B, using the two-steps-equals-a-major-third rule. The seventh tone is a whole step below the octave, as it was in the D minor 7th and E minor 7th chords. It is not just a half step as it was in the C major 7th chord. (If you didn't catch that difference, go back and see for yourself.)

This new chord, with a major third and a flatted seventh is called a **dominant seventh** chord. Its name refers to its role in chord progressions. It is usually characterized as being less restless than minor chords, although its ability to release tension by moving upward a fourth to another chord is quite strong. Playing every other note as before but beginning at A will produce another minor seventh chord.

Playing every other note from B gives us a root, a minor third (D is a step and a half from B) and a fifth tone that is one half step flat compared to all the others that we have played in this exercise. To prove this, count the half steps between the root and the fifth tones. You will find one less in this example than the others.

This chord is called a **minor seventh** with a **flatted fifth**, or a 'minor seven flat five chord for short. It is also frequently called a half-diminished chord. It can be heard to be a restless chord as well, leaning toward eventual resolution. To summarize, we've found a major seventh chord at positions 1 and 4, minor sevenths at positions 2, 4, and 6, a dominant seventh at position 5 and a minor seven flat five chord at position 7 in the scale. Now what?

The Diatonic Cycle of Fourths

When I was first learning music theory, I often heard older musicians talking about a **cycle of fourths or fifths**. In looking at music books, I noticed many that drew diagrams to illustrate this, going chromatically through all the keys in fourths or fifths. Although this information was valuable, I found very little usefulness in analyzing chord progressions. I knew of no songs that actually progressed chordally in this manner.

There was almost always something more going on, and a cycle of chromatic fourths or fifths did little to predict what a chord progression might be like in a composition.

Since I was able to hear that jazz musicians had a much deeper understanding of chord progressions evidenced in their choices of notes in improvisation, I knew that the cycle of fourths was only part of the picture. It took me a while personally to figure this out, but here's the rest.

It is very true that musical progression tends to resolve in fourths, but in most songs this is a *closed* system of chords in that the cycle of fourths is limited to movement in fourths in **diatonic chords**. (This of course creates one interval that is an **altered**, or sharp fourth, between 4 and 7. More on that later, too.)

To put this in context, movement of 1, 4, 7, 3, 6, 2, 5 relative to one scale is extremely frequent in western music. Looking through any songbook with tunes from the last hundred or so years will provide the reader with countless examples of this type of chordal movement beneath melodies from Steven Foster's time, for example, until today.

Certainly there are other elements such as modulation (progressing to another key) and implementation of symmetric chords such as augmented and diminished sevenths. Also, the type of chord may frequently be interchanged (much more on that later). For example, placing a dominant seventh where a major seventh or minor seventh chord might be predicted to appear. Or placing a minor seventh in the place of one of the majors, or even the dominant seventh.

Despite this, the diatonic cycle of fourths is obviously a useful tool to analyze chord progressions in music not only for the purpose of playing good sounding lines over chord progressions, but for composing music and re-harmonizing existing music as well.

Using the Diatonic Scale as a Reference

The diatonic scale generates seven chords, but as we all know, some tunes have only one, two or most frequently three chords, and other seem to have zillions. How does this relate? To answer that, let's consider a few things.

A good place to begin might be the three-chord song. Most of know many of them from "Happy Birthday to You" to almost every fast Rock and Roll tune ever written. We all know the Blues can have just three chords, but sometimes more. There are even tunes that seem to have just one or two chords, but is there a common thread? I think so.

Three chord tunes almost invariably have a Tonic, or Root chord, which then moves to the 4, then the 5 and back to the 1 or Root. In "La Bamba" or "Twist and Shout" this becomes a pattern of 1, 4, 5, 4 played over and over. In country tunes, there are usually two or four measures of each change. In the Blues, all the chords are usually

dominant. This is obviously not a diatonic progression, is it? Well, yes and no.

What you will find is that the chords are still 1,4 and 5 chords, but the major scale sounds awful against them if they're all seventh chords. Obviously the scale predicts **where** the chords will fall to some extent, but the scale is **not** a good device to create the appropriate harmony. More is needed.

This can be formulated into some true-isms about music in general, and with some study, the diatonic scale can serve as a launching point to get to virtually any type of music, and to aid in selection of the proper choice of notes for improvisation, harmonization and composition. In other words, to find out what scale might go with what chord, as beginning musicians are always struggling to determine.

Same Scale, Different Chords

First, in addition to their original identities, ***the diatonic chords may appear in a tune as some other type of chord***. A dominant seventh chord, for example, could appear at *any* of the positions of the diatonic scale notes, i.e. in the 1, 4, 7, 3, 6, 2, or 5 positions. These seventh chords may have **extensions**, or additional non-scale tones added. The third and fifth tones may also be **altered** (moved up or down a half step) as well. This is particularly true of both jazz and popular music from the post WWII era until today.

As has been the case with many performing musicians, I have been frequently asked questions regarding scales or chords by aspiring jazz musicians who are at or near the beginning of their musical journey. Usually, these questions are on the order of what scale to use to improvise over a particular progression of chords, or what scale best fits a certain type of chord, such as a dominant 7th or a minor 9th.

I have both read and heard comments from well-known musicians who get the same questions. Unfortunately for the less experienced musician, the answers to these questions usually leave a lot to be desired, and impart very little information to the asker. The reason for this, of course is the lack of focus in the questions themselves. However, there is an obvious audible connection between chords, scales and progressions, and these types of questions really do deserve answers. It will be my purpose to make things a bit more clear with this text.

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Chord Substitution Studies

Introduction To Jazz Theory III

Chapter Three: II-V (2-5) Progressions

As the name does not imply, *it's not just for 2-5 progressions, but for any time a chord moves to another chord having a root a fourth away from the first, i.e, 1-4-7-3-6-2-5-1.* As you will discover, this movement predominates in our music. Without going into a great deal of detail, the 2-5 movement will resolve again by a fourth to the 1, which may be either major or minor, as we have seen from previous examples. This is the same thing as moving from a 4 to a 7 to a 3 or 3-6-2. We already know minor or dominant chords can occupy diatonic positions where diatonic theory would predict something else.

In modern music, there is an additional complicating factor known as the **tritone substitute**. We will have a better and more analytical look at the tritone substitute chord later, but for now, it may be thought of as a dominant 7th chord whose root is eight half steps (a flat five, or *tritone* interval) away from the 5 chord or its equivalent.

In a chord progression going from Dmi7 to G7 to Cmaj7 for example, the tritone substitute would be C#7 as a substitute for G7. Similarly, if the same song had a movement from Emi7 to A7 before reaching the Dmi7, the tritone sub for A7, D#7 or its alteration (D#7 b5/ #5/b9/ #9) could be used instead of, or in conjunction with A7 during the progression.

To look at this more simply, a 2-5-1 (or 3-6-2, or whatever) can be substituted 2-b2-1 (or 3-b3-2, or whatever). Also, more complex progressions such as 2-5-b2-1 are allowable and sound good.

The Major 2-5

This tritone substitution or extension of a 2-5-1 type progression may be characterized as a *major 2-5 progression*. To harmonize an extended major 2-5(b2)-1 progression, we will obviously need a scale with some different notes than the diatonic scale in it to sound good, as the b2 chord will have some different tones. The scale of choice is the **melodic or jazz minor** scale referenced at the beginning of this piece, but which one?

To answer this question, let's look at the similarities between the 5 chord and the b2. In every case, you will find that any 5 and b2 chords chosen in any key will have two tones in common. They are the 7th tone of the b2 chord is the 3 of the 5 chord, and the 7th tone of the 5 chord is the 3 of the b2 chord! These tones are called "**guide tones**"

and their commonality is the fundamental reason that these chords are substitutable for each other. As the 5 chord becomes more altered, or dissonant, by adding # or b9's and 5's or 13ths, the chords become even more similar.

If we choose a melodic minor scale that outlines the guide tones, and additionally reflects the alterations of the 5 chord, i.e. its sharp and flat 9's or 5's it will sound good with the tritone sub or the altered 5 chord, or both. To do this properly, we must choose a melodic minor scale whose root is **one half step above the 5 chord**.

Remember that the "Root" is relative. This type of substitution works in any position that the chords are going through similar motion. Fmi7, playing in Eb, then C# melodic minor, then back to Eb will sound good for the same reasons.

The C# melodic minor contains both the **inside** structure of the 5 chord, Bb, that is the 3rd and 7th tones as well as the root, and the **upper** structure of the chord, that is the altered, or flat and/or sharp 5th and 9th tones of the Bb7. For that reason it sounds very good with a Bb7 having one or more of these alterations.

However, the important issue to remember is the applicability of this idea to *any* chordal movement in fourths, regardless of where it may fall in a tune. This movement from a diatonic scale to a melodic minor a half-step above the "dominant" chord (the "dominant" being the "in-between" seventh chord in a 1-4-7, #4-7-3, 3-6-2, 2-5-1 progression or anything having a similar relation of intervals) then back to the diatonic scale may be generally referred to as a *Major 2-5-1* progression.

Turnaround

Yes, I know, we were using the scale shifting from diatonic to melodic minor back to diatonic in positions that did not have a 2mi7 chord going to a 5dom7 chord to a 1maj7 chord, but might have had a 3mi7 to a 6dom7(altered) to a 2mi7 chord. What's up with that? The fact is, even though the major 2-5-1, or its tritone extension 2-5-b2-1 is a major "turnaround", **it also sounds good played between minors!** This is a very valuable improvising tool, since there is also a **minor** turnaround, and it in turn sounds good against majors!

This means that there are at least two ways to address the same chord progression. As you probably already figured out, this will involve the harmonic minor scale. Let's look at a couple of preliminary ideas, then put this to use also.

The Minor 2-5

This may be outlined in scales by beginning in the appropriate diatonic scale, then moving to the appropriate harmonic minor scale, then back to the original diatonic environment. For example, in the key of A minor, (or C major) the minor 2-5 would begin with Bmi7b5, then go to E7 (altered) then to A minor. The C scale would be implemented for the Bmi7b5 and A minor chords, and a harmonic minor beginning on A

could be used during the E7 or E7 altered episode.

This is a harmonic minor turnaround, but, as you already know, the *major* 2-5 could also be used, depending on the composer or player's subjective need for dissonance or note choice from the scale of choice.

Remember that substitution of major or minor 2-5's can occur whenever taste dictates, and if the proper scales are implemented, then the line will sound good if composed and/or played well. To be thorough, it is a very good idea to know both the melodic minor and harmonic minor needed to play into any chord at any position in each different diatonic scale.

If, like me, you are primarily a guitar player, this will require that you learn both chords and scales in more than one position- in fact in at least four positions for each scale and key. The good news is that this only amounts to a total of four to six different fingerings for each of the two new scales and for the diatonic scale if you don't yet have it down everywhere.

Once these scale positions are familiar, then the diatonic scale gradually begins to look like a backbone to which other chords and scales are attached at specific positions.

For example, where a tune uses a dominant 7 chord at the 6 position in a diatonic scale based on the root, as do countless standards and jazz tunes. A melodic minor scale based on the b7 (the note one half-step above the 7th chord or a harmonic minor scale whose root is the same as the 2 chord, the target of a 3-6-2 progression will either and both contain notes that are good melodic choices for improvisation. Moreover, since literally thousands of tunes from "Donna Lee" to "Dolphin Dance" have this progression in common, once these relative positions are known, the scales may be utilized in any appropriate tune, and in any key.

Obviously, learning both melodic and harmonic minor scales, which reflect a 2-5-type turnaround to any chord in a diatonic scale, is an extremely valuable undertaking. It provides you with the tools needed to play over any type of chord with the alterations of 9th and 5th (or 11th) tones you will usually encounter.

There are some other possibilities. When the 13th tone is added, and we will deal with some other methods of harmonizing as well. If you are conversant with harmonic and melodic minor note choices leading into a chord you will have enough to play good lines over any type of chord. Even the 13b9 or maj7aug type chords. We'll put that to use in analyzing some harmonic choices, but first, let's expand the diatonic "family" of chords to include the new types of chords we can expect to see at the old positions. Also, let's look at where these chords might move in progressions, and which melodic and harmonic minor scale would be appropriate to harmonize this movement.

Chord Substitution Studies

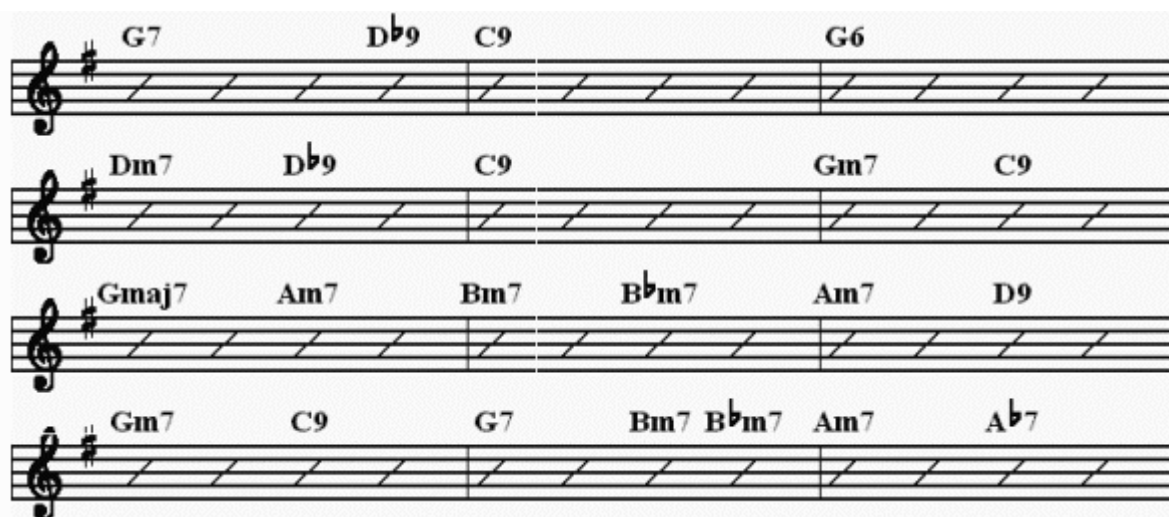
Substitution - Summary Chart

The first section contains a standard version of the popular "Blues" progression. This is just one of many variations of the progression. Some use all 7th chords - others omit the first C7 chord in measure two. But in general they are all alike.



Four staves of music showing a standard Blues progression in G major. Each staff has three measures with slanted lines indicating a continuous line. Chord changes are labeled above the staves:

- Staff 1: G7, C7, G
- Staff 2: G7, C7, C7
- Staff 3: G, G, D7
- Staff 4: C7, G7, D7



Four staves of music showing various substitution techniques in G major. Each staff has six measures with slanted lines indicating a continuous line. Chord changes are labeled above the staves:

- Staff 1: G7, D^b9 , C9, G6
- Staff 2: Dm7, D^b9 , C9, Gm7, C9
- Staff 3: Gmaj7, Am7, Bm7, B^bm7 , Am7, D9
- Staff 4: Gm7, C9, G7, Bm7, B^bm7 , Am7, A^b7

Play through the chord changes illustrated in the second set of staves. Within this study are "Direct Substitution", "II7-V7 Substitution", and "Flat-5 Substitution" techniques. See if you can identify the various types of substitution techniques. It may be helpful to print this page and then transcribe the changes to several different keys. Please keep in mind that

Bm7-5 can be used for the Bm7 in the example. Bm7-5 = G9(NR).
Remember that substitution is a very subjective craft. You use what sounds good to you. With a little dedication these techniques will become almost automatic. Learn it well, it will last a lifetime.