

Learn How to Play
Piano / Keyboard
CHORDS

Including 9ths & 13ths Etc.
With Charts in Keyboard View



Martin Woodward



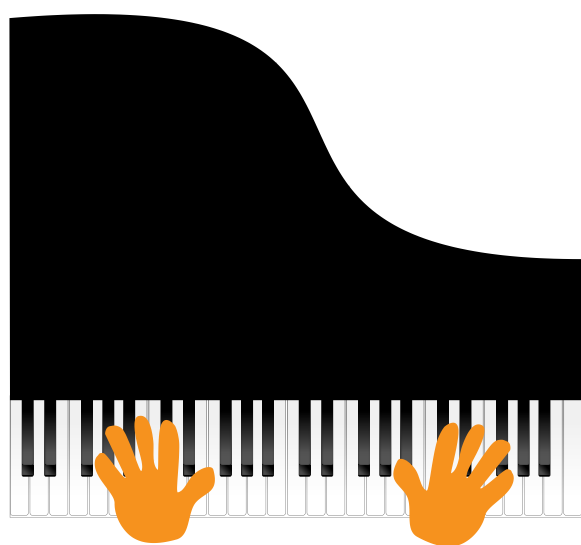
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To my early mentors: Alan Simonds (guitarist / vocalist); big bruv Steve (guitarist) and Mr. Henley (my inspirational music teacher at Warlingham School 1960 - 65).

And to Myriad Software: <http://www.myriad-online.com> for the Melody Assistant music notation software which was used for the production of this book. - Thanks!

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← Introduction →

Included in this book is the following:

- Chord construction (extensive);
- Chord substitution;
- Inversions;
- Chord fingering;
- Diatonic chords;
- Chord charts in keyboard view showing just about every chord that you will ever need including **7ths**, **9ths**, **augmented**, **diminished** etc. and how to play an effective **13th** chord with just four notes;
- Free music notation and recording software;
- Audio links for the examples;
- Free printable download.

Note that all of this information plus an enormous amount more is also included in my paperback book or printable eBook: [Learn How to Play Electronic Keyboard or Piano In a week!](#)

But if you are just looking for chords then look no further - it's all here!

Get the Best from this Book

This book has been written to be read as a paperback and / or a digital eBook. If you have the paperback version - *great*, - without doubt this is the best version for flipping backwards and forwards to where you want to be. However, if you wish to hear the audio examples included, you may find it convenient to also have the digital version in pdf format which can be read on any PC, laptop or tablet. You may also find it useful to print out certain pages, perhaps to make notes on, or maybe because of inconvenient page turns etc. This you can do easily with the digital version.

If you have purchased the paperback version, the digital version is *freely* available to you *for your own use only*. This can be found under the [download link](#) heading at the end of the book. Be sure to copy the link exactly as written including the hyphen and the underscore between the words. If you have any trouble with this, I will be happy to help.

There are audio links throughout the book which can be accessed two ways:

- by using the free external link given at the end of the appropriate chapters which gives access to all the links in the order in which they appear; or

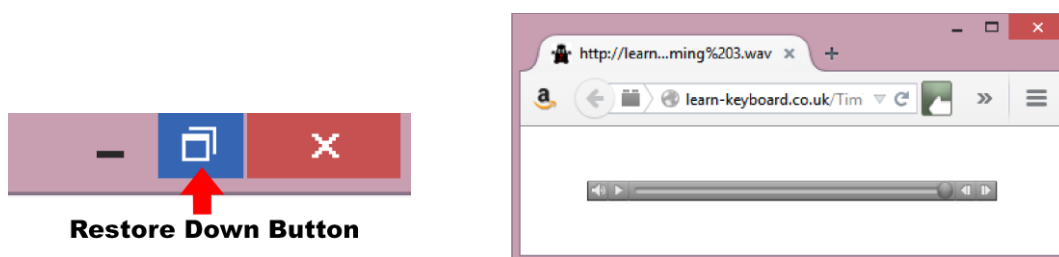
- by using the links throughout the book as they appear in the digital pdf version - *internet connection required*.

Even if you have the printed version, you may still wish to download the pdf version in order to gain easy access to the links as they appear in the book.

Using the *in Book* Links

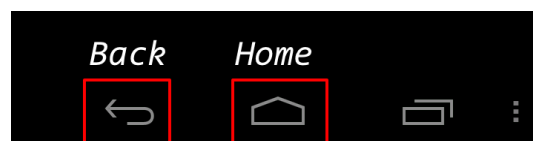
Quite probably you may only need to listen to some of the audio links, but several are included for your convenience.

To access the links easily, if you are viewing this on a laptop or PC first of all go to your browser and click the restore down button in order to reduce the view size to something like the image below to the right (by dragging the bottom and sides).



Then click on the link which should then appear in front of the document enabling you to move it out of the way of anything that you may wish to see at the same time.

If you are viewing this on an Android tablet as soon as you click on the link you will lose the book view until you push the 'Back' button (shown below).



If you want to you can have a trial run now by clicking on the following graphic which actually is 'Pop Goes the Weasel'!



Note that the links may not work if you are viewing this in a Google or Amazon sample. Please go to <http://learn-keyboard.co.uk/chords.html> for a free *working* pdf sample.

Note also that each link will open a new page in your browser, so you will eventually need to cancel them *or just close the browser!*

In addition to the external links, there are also numerous internal links to help you navigate to certain reference points in the book and return, including the arrows either side of the chapter headings. Clicking the green right-hand one will take you instantly to the next chapter and the red left-hand arrow to the beginning of the last chapter.

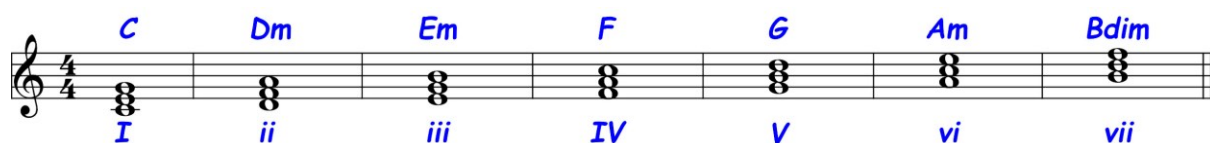
If you want to navigate to another chapter quickly, simply click on the ‘[↩](#)’ icon which is in the footer of every page (including this one). This will take you instantly to the ‘Contents’ page where you can then click and go to any chapter you wish - *so you can basically whizz through the document at lightning speed!*



← Chord Construction →

Every musical piece (in classical, jazz and pop) is formed around a progression of chords, sometimes simple and sometimes very complicated. Either way learning all of the basic chords is absolutely essential and even more so if using auto-accompaniment features. Understanding how chords are constructed is essential for correct theoretical understanding - particularly for composition and improvisation.

The basic triad chords are constructed by piling notes of the scale on top of each other a third apart and playing them simultaneously. Using the scale of **C major** and referring to the diagram below you can see that the first and most important chord of the key is made as follows: **C** (root note - the tonic), **E** (3rd note of the scale - the mediant) and **G** (5th note of the scale - the dominant). This is the root position of the **C major** chord.



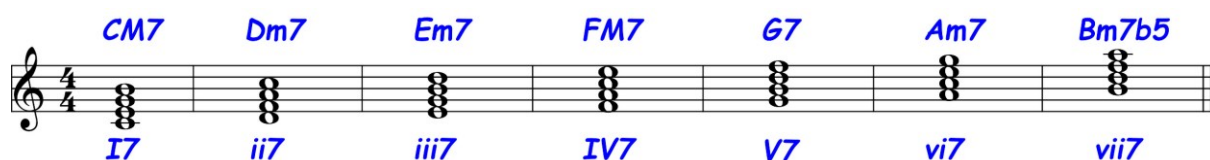
Moving up the scale, starting on **D**, we achieve a **D minor** triad, and then **E minor**, **F major**, **G major**, **A minor** and **B diminished**. These chords are the 'diatonic' triads in the key of **C major**, which means that they are all *derived* from the notes of the **C major** scale and as such contain white notes only, (as there are no black notes in the **C major** scale).

Practice these with each hand separately and notice how they sound.

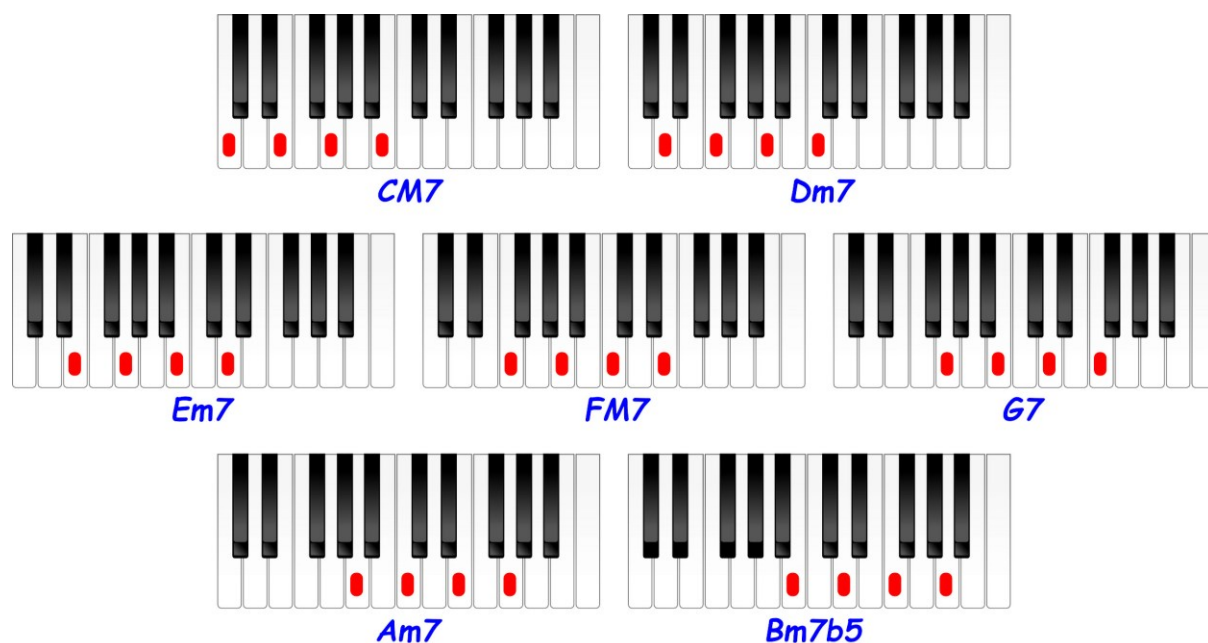
Notice that the difference between a major and minor triad is that the intervals in a *major triad* are a 'major 3rd' followed by a 'minor 3rd', whereas the *minor triad* has a 'minor 3rd' followed by a 'major 3rd'. The *diminished triad* consists of two 'minor 3rds' and the *augmented (+5)* triad has two 'major 3rds'.

The Roman Numerals shown signify the degree of the scale which each chord starts on. In all cases the diatonic chords of a major scale contain *major* chords at the **I**, **IV** and **V** degrees *minor* chords at the **ii**, **iii** and **vi** degrees and *diminished* at the **vii** degree. Usually (but not always) the minor and diminished chords are signified with lower case Roman Numerals (**ii**, **iii**, **vi** & **vii**).

By adding further thirds above each triad, **CM7** is achieved, then **Dm7**, **Em7**, **FM7**, **G7**, **Am7**, **Bm7^b5**. By adding further notes at third intervals more complicated chords like **9ths** and **13ths** etc. will be created; these will be covered shortly.



In the keyboard views below I have only shown the **7th** chords; to see the triads, simply omit the 7ths (the last note of each chord). Please also notice that some of the 7th chords are signified with a capital ‘M’ and others with a lower case ‘m’, this is *vitally important* and will be explained shortly.



Additional chords can be created from the relative minor scales due to the harmonic and melodic (scales) differences although we are not going to go into these in this book.

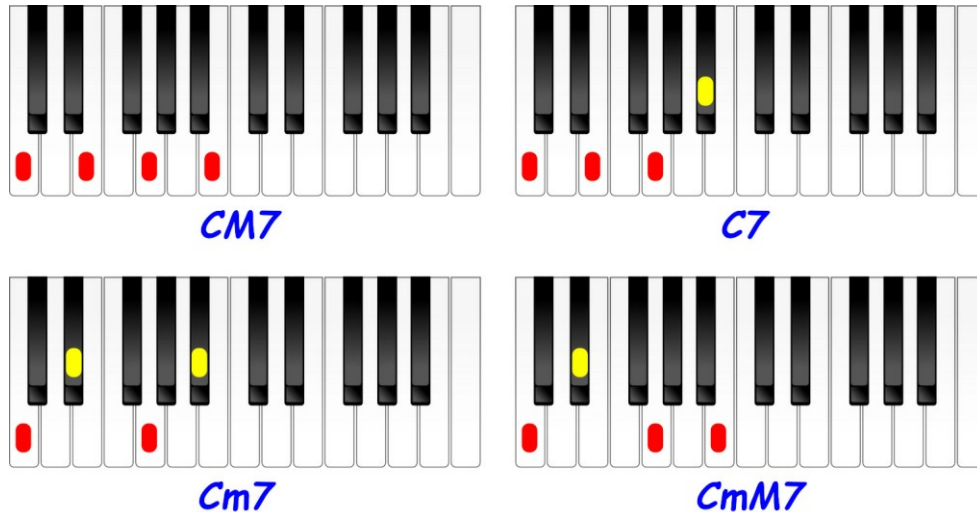
Note that it’s important to remember that while many musical compositions will use only the diatonic chords (found naturally in the relevant scale) and no other, it’s by no means necessarily the case. You can use any chord in any key if you can make it work, but the diatonic chords *as found in the scale* are more likely to work!

A Few Important points about 7th Chords

Major 7th (M7) chords must not be confused with what is generally called a ‘normal’ **7th** (7) chord (which really should be called a *dominant* 7th but often isn’t). **Major 7th** chords have a major 7th (one semitone down from the octave) whereas the ‘normal’ (dominant) **7th** chords are the same major triad with a minor 7th (2 semitones down from the octave). **Minor 7th** (m7) chords are like the ‘normal’ dominant 7th chords but have a minor 3rd. And a **minor chord with a major 7th**, would be written (C)mM7 although I have to say that this one is the least common, but it needs mentioning nevertheless.



And again, in keyboard view.



The only ‘normal’ 7th chord naturally occurring in the major scales (diatonic) is the *dominant 7th* (which is **G7** in the **C major** scale). The *dominant 7th* chord resolving to the tonic chord (**V7 - I**) is the strongest of all progressions and is used repeatedly in all types of music (classical, pop, jazz etc.). Notice the difference in the sounds of these chords and that they are totally different and can **NEVER** be substituted with one another.

The same applies to **9ths**. What is normally known as a **9th**, is a *dominant 7th* (major triad with minor 7th) with an added **9th**, but a **major 9th** is a **major 7th** with the same added 9th and is written (**C**)**M9**.

So, to make this completely clear:

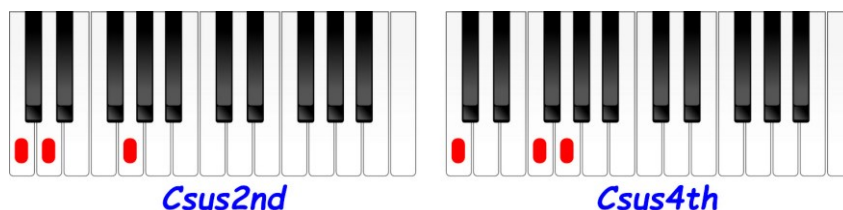
- **C7** is a major chord with a minor 7th;
- **CM7** is a major chord with a major 7th;
- **Cm7** is a minor chord with a minor 7th;
- **CmM7** is a minor chord with a major 7th.

And the only one of the above chords to appear in the notes of the **C major** scale is **CM7** and as such is the only one which is *diatonic* in the key of **C major**.

Play these now and hear the difference.

Suspended 2nd and 4th Chords

The '*suspended 2nd*' (also known as '*sus9*') and '*suspended 4th*' (also known as '*sus*') chords desperately want to resolve to the major chord as shown here. These are used extensively in all types of music, but perhaps more so in country music.

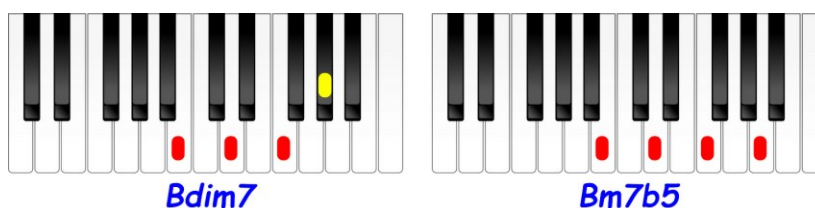
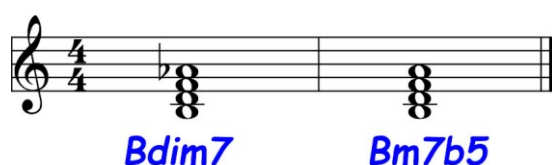


Note that these chords do not have a 3rd and as such are neither major nor minor, but as they *generally* resolve to the major chord, they can perhaps be considered more major than minor, but they could be either.

Diminished 7th Chords

You may be confused about the difference between a true *diminished 7th* chord and what is often called a '*half diminished 7th*', (if not now you probably will be at some point).

Both have the diminished triad which is **B, D & F** (**B diminished**, the only diminished triad in **C major**). You should notice that the triad consists of two *minor 3rd* intervals.



If we add the 7th this will put an '**A**' at the top (which is a major 3rd interval above **F**) and this is often known as **B (half) dim7**. But this chord could also be known as **Bm7b5** - (**Bm7 flattened 5th**), because that is exactly what it is! Put a **G** at the bottom of this

chord and it would become **G9**, which means that **Bm7^b5** could be used as a substitute for **G9** with no problem.

Now instead of adding the **A** (7th) at the top, if we add **G#** (a minor 3rd interval above **F**) we will end up with a true *diminished 7th* chord. Although **G#** (**A^b**) is not in the **C major** scale, it is in the relative **A minor**, both in the harmonic and melodic scales and is therefore a diatonic degree in the key of **A minor**.

The symbols shown below are often used to signify the *diminished 7th* and the *half diminished 7th* chords.

Diminished 7th Symbols

○	Full Diminished 7th Symbol
⊘	Half Diminished 7th Symbol

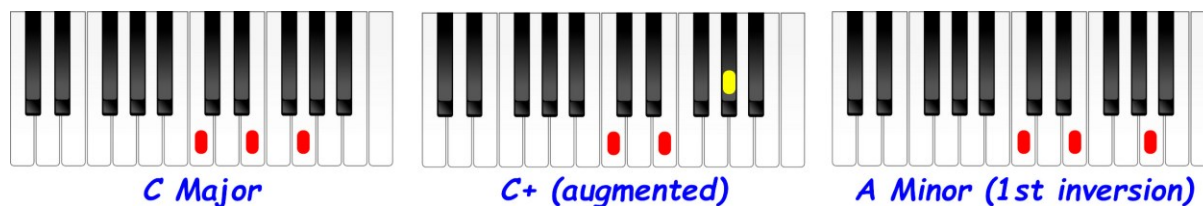
You may notice that the **B, D, F & G#** *diminished 7* chords are all the same - the only difference being in the bass notes!

A beautiful example of the use of *diminished 7th* chords and arpeggios can be heard in Beethoven's '*Moonlight Sonata*' - a superb timeless piece of music!

Augmented Chords

Augmented chords are often used '*en passant*', i.e. stepping up from **C** - **Am** as shown here or from **C** - **F**.

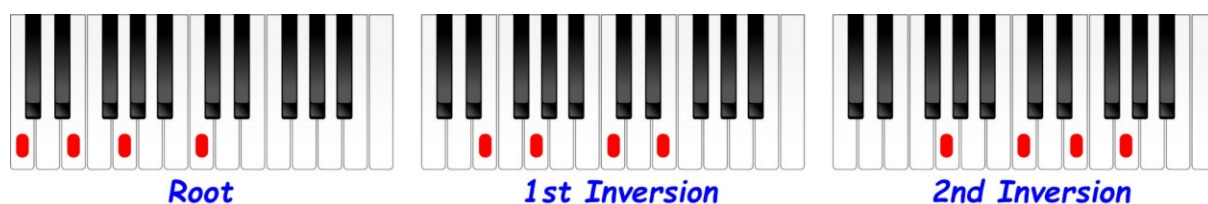
The augmented triad consists of two *major 3rd* intervals.



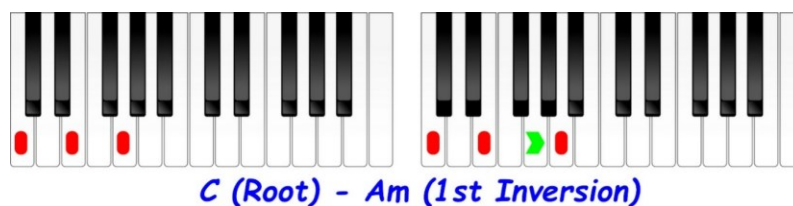
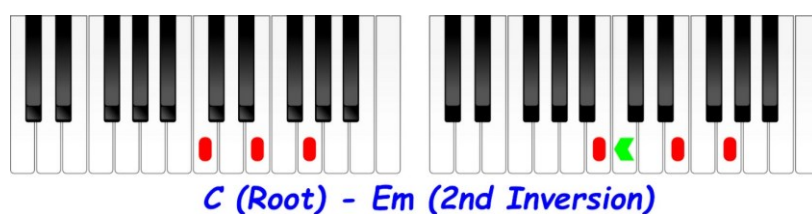
But similar to the diminished chords you may notice that **C, E & G#** augmented are all the same chords, being identified apart only by the bass notes.

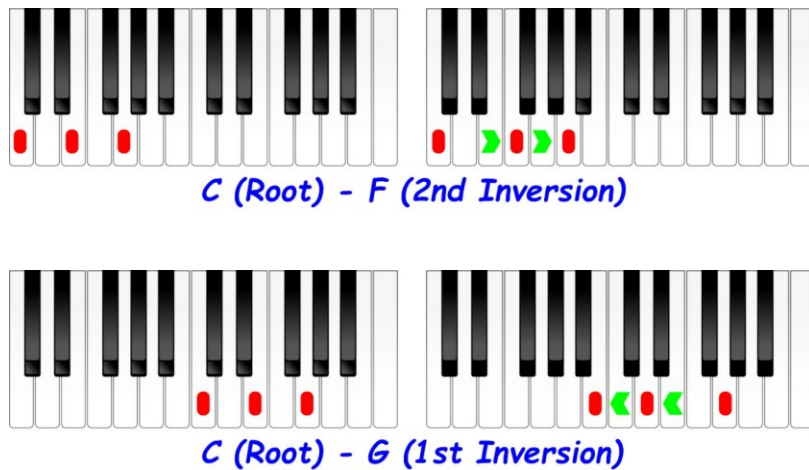
Inversions

By moving the **C** to the top of the first **C major** triad and making the **E** the bottom note, the '1st inversion' is created. Similarly, by moving both the **C** and **E** above, the '2nd inversion' is constructed. This works the same with full four note chords as well as with triads as shown below.



Using inversions can be useful when changing chords with the minimum amount of finger movements. For instance, the **C major** 'root position' can be altered to an **E minor** triad simply by changing the **C** to **B**, or to an **A minor** triad by changing the **G** to **A**. And by moving only two fingers a short distance **C major** can be easily changed to **F major** or **G major** as shown below.





If using auto-accompaniment, you'll find that most keyboards will identify the various inversions, but you will almost certainly find that there will also be a function which allows you to choose which note is sounded in the bass which would be the root note by default.

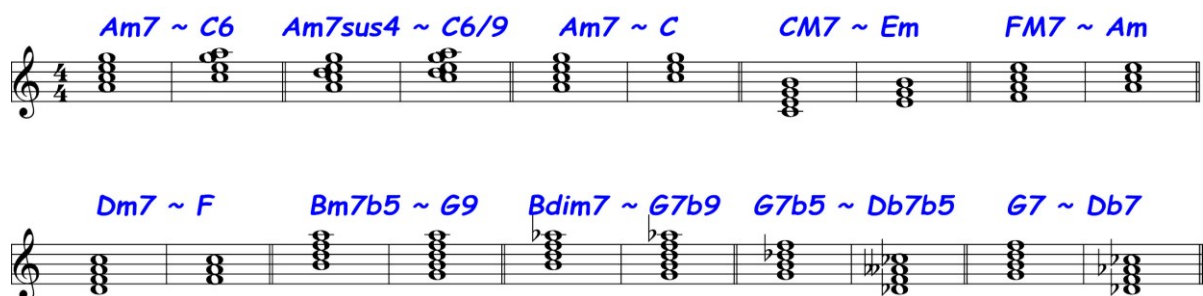
Chord Substitution

As you progress you'll see that many chords are very similar, some even identical and as such can be used as substitutions if required.

For instance, **Am7** and **C6** consist of exactly the same notes - (C, E, G & A) and therefore the only thing that could identify them as being different is which note is used in the bass. It's more common (but not essential) to use the root note in the bass. So, remember that every **major 6th** is identical to the relative **minor 7th**.

Similarly, **Am7sus4** and **C6/9** are totally identical and these are very important chords in relation to improvisation as they form the notes of the pentatonic scales.

As already shown **Bm7b5** can be substituted for **G9** as they are the same chord except for the 'G' as is **Bdim7** and **G7b9**. Just a few other possible substitutions are shown below.



In fact, any two chords which share at least two common notes can often be substituted. As shown in the last example **G7** and **Db7** (above) are in fact harmonically as far apart as it gets, but as they share two common notes - **F** and **B** (or **Cb** to be theoretically

correct for the **D^b7**) are often substituted particularly as a blues finale - **D^b7** - **C**. Note that **G7^b5** and **D^b7^b5** are exactly the same (**C^b** is **B** and **A^b^b** is **G**). And this applies to all **7^b5** chords which are a *'tritone'* (3 tones) apart.

You will find that many similar substitutions can be made so don't be afraid to experiment, but always remember that a **'M7'** chord can never be substituted for a normal *'dominant'* **'7'** chord as they have no relationship whatsoever. Similarly, a *'minor'* chord could never be substituted for a *'major'* chord (of the same name) for the same reason.

Chord Substitutions as against Chord Alternatives

I feel that I must clarify exactly what I mean by *'substitution'* here, as there is a fear of being misunderstood.

By substitution I mean what you can play *against* what other band members are playing in a way that doesn't clash.

For instance, if the rest of the band (or even your auto-accompaniment) was / is playing a **C7** chord and you played a **G minor** - it would work, as most of the **G minor** notes are also in **C7**, the only exception being the **'D'** which would in effect change the **C7** into a **C9** but this wouldn't clash.

But if other band members (or your auto-accompaniment) played a **C7** and you tried playing a **CM7** or **Cm7** or **CmM7** etc. against this, it would sound terrible for the following reasons:

- The **'B natural'** in **CM7** and **CmM7** would clash against the **'B^b'** in **C7**;
and
- the **'E^b'** in **Cm7** and **CmM7** against the **'E natural'** in **C7**;

Try it and you'll see what I mean.

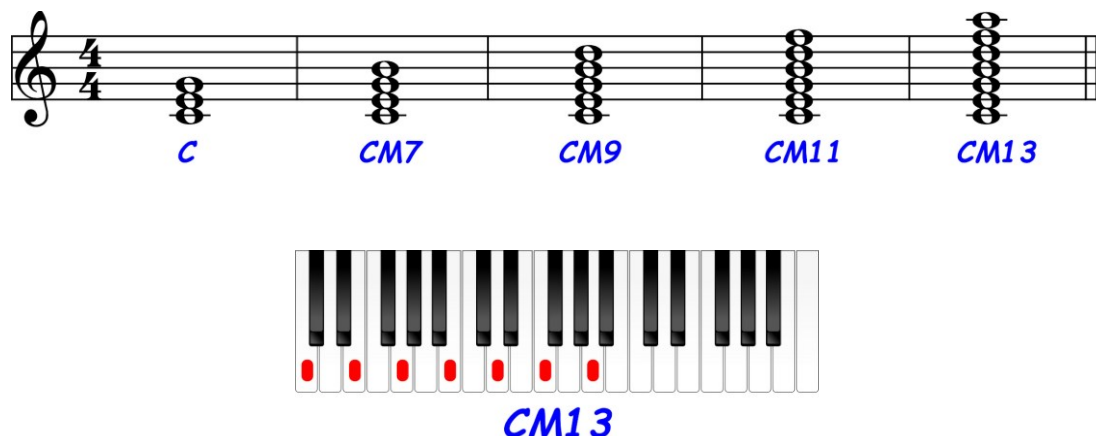
Now on the other hand what I would call an *'alternative chord'*, is what you might use if you were playing on your own with no auto-accompaniment, (maybe composing or arranging) and perhaps choosing a chord to go with the notes **'C'** and **'G'**. In this instance you would have many potential alternative choices including the four chords that I said previously could never be used as substitutes, i.e. **CM7**, **C7**, **Cm7** and **CmM7**. Any of these *could* work because they all contain the notes **'C'** and **'G'** in their makeup. As do **Am7**, **Gsus4**, **A^bM7** and no doubt many other chords.

Which chord would be best, would be determined by which chord comes before and after and to a certain extent also the key signature. Diatonic chords are more likely to fit. *Clearly you would need to experiment!*

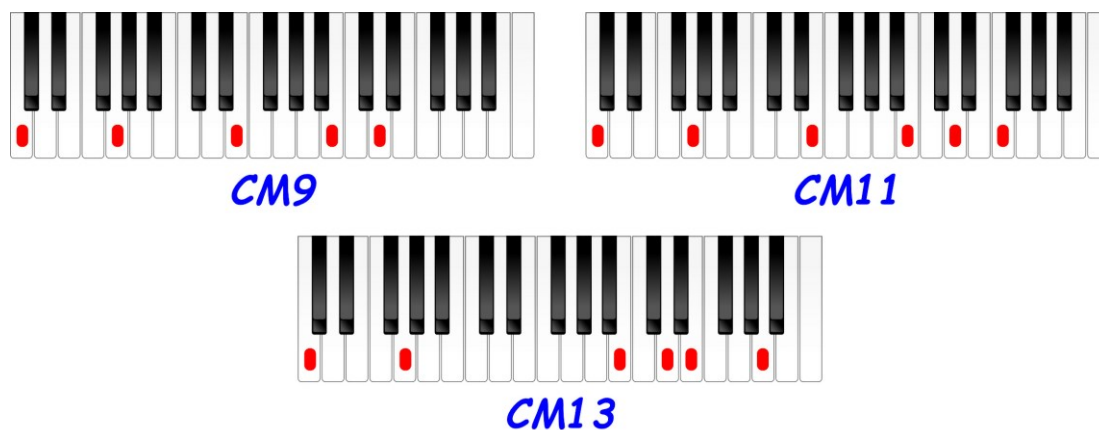
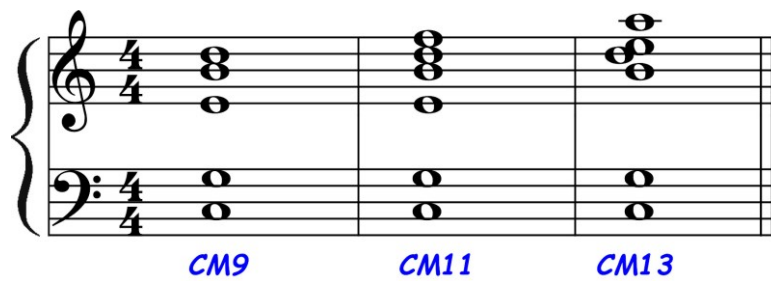
In all cases the chords must fit the melody notes and any substituted chords must be compatible with one another *and* the melody *and* with what any other band member (or auto-accompaniment) is playing.

Extensions Beyond the 7ths

Going back to the **M7** chord extension; if we carry on adding notes to this chord at diatonic 3rd intervals above the root chord, the **M9th**, **M11th** and **M13th** chords would be created as shown below:

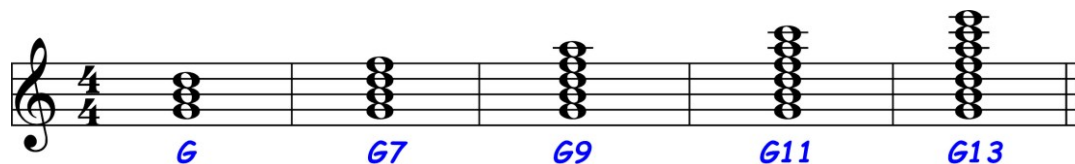


The fact that the **M7th** is used also makes the **9th**, **11th** and **13th** extensions 'Major'!
And here's some playable inversions.



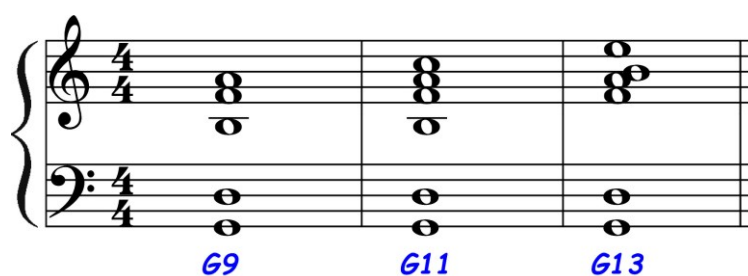
But, I have to say that the **M11th** and **M13th** are very uncommon. The majority of chord extensions are built on the **dominant 7th (V7)** chord which of course is **G7** in

the key of **C major**. And the most common extensions created are the **9th**, **11th** and **13th** as shown next.

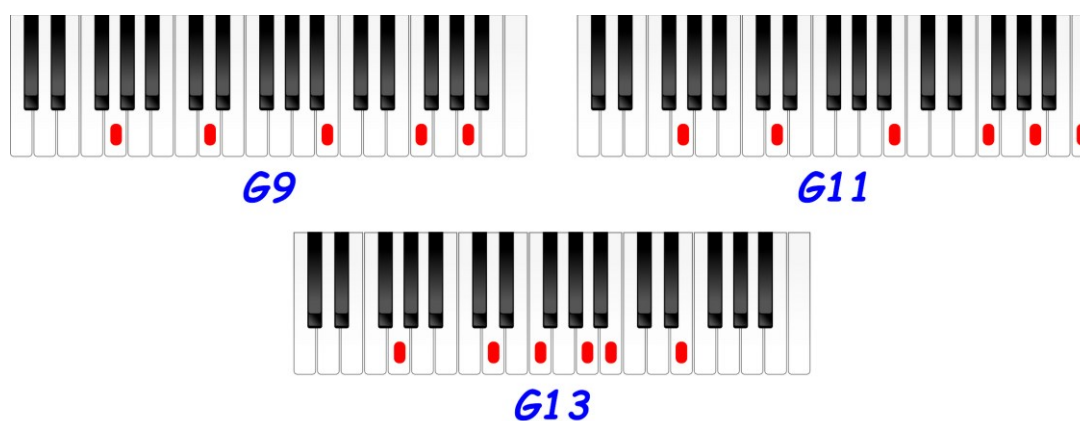


Look carefully and you'll see that **CM13th** and **G13th** are actually different inversions of the same chords and if re-organised are also the notes of the **C major** scale; and as such also contain within them all the other '*diatonic*' triads and chords of **C major** - think about it!

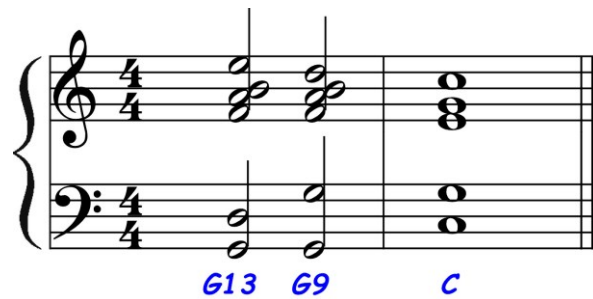
Here's some playable inversions.



If playing with a band, you only need to play the right-hand notes as shown here in the treble clef, which although don't include the tonic or 5th *do* create the sounds of the chords - try them - they work great!



Notice how the **G13 (V13)** followed by **G9 (V9)** resolves beautifully to the tonic **C major (I)**, shown next.



What is the difference between a 6th and a 13th?

Clearly the **13th** is a **6th**. I suppose you could say that a **6th** is a cheap, simple way of playing a **13th** and it works, but the difference is the fact that the **13th** also contains the all-important **7th** and **9th** and is a completely different sounding chord - experiment and hear the difference!

See: http://www.learn-keyboard.co.uk/chord_construction.html for the audio link to this section, or click on the applicable graphics.



← Chord Fingering →

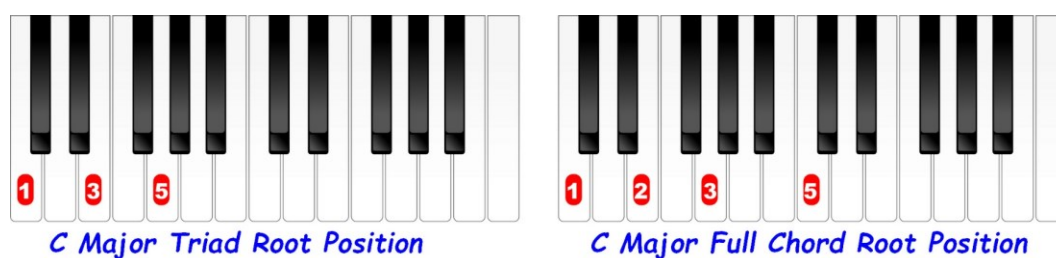
The fingering for the various chords depends very much on whether you are playing triads or full chords and which chord (or passage) is going to follow, and of course to a certain extent it depends on which chord you are playing.

If I was to outline the fingering for each individual chord in every inversion in every circumstance it would bore you senseless apart from taking months to produce.

But what I can do more sensibly is to give you a few valuable *general* examples which work in most instances. But as always, whatever you do - if it works, it's ok.

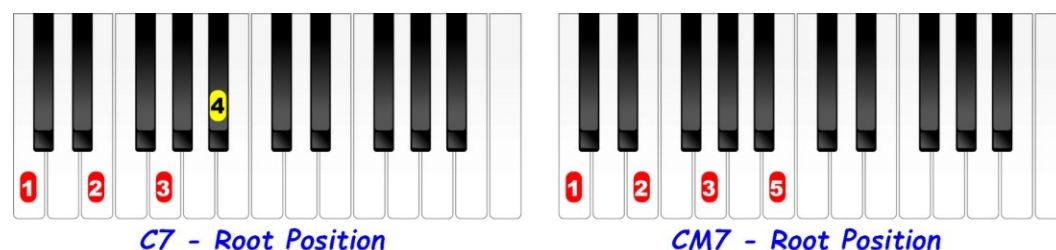
To keep things simple, we'll start with the **C major**.

If I was asked to play a **C major triad** or a **C major full chord** with my right hand, off the top of my head without thinking, the fingerings that I would use are as follows.

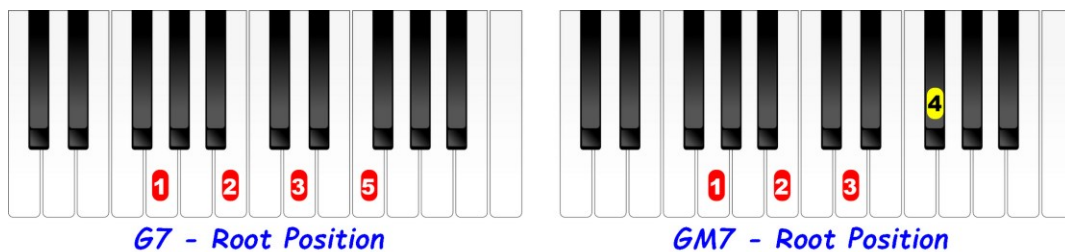


Furthermore, the above fingering would work for every root position major and minor chord. Generally speaking if a scale begins on a black note, you would usually use the 2nd or 3rd finger at the root, but not so with chords - the above fingering would still work for every major and minor root position chord.

Now staying with the root position, as we add the **7ths**, which finger that is used at the top (the 7th) is determined by whether it's a white note or not as shown below.

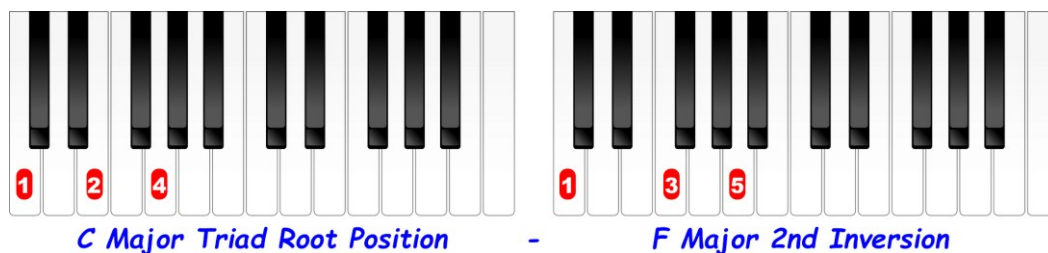


And if we look at **G7** and **GM7** as below, you will see that it's the other way around with the 5th finger being used on the **G7** and the 4th on the **major 7th** as it's a black note.

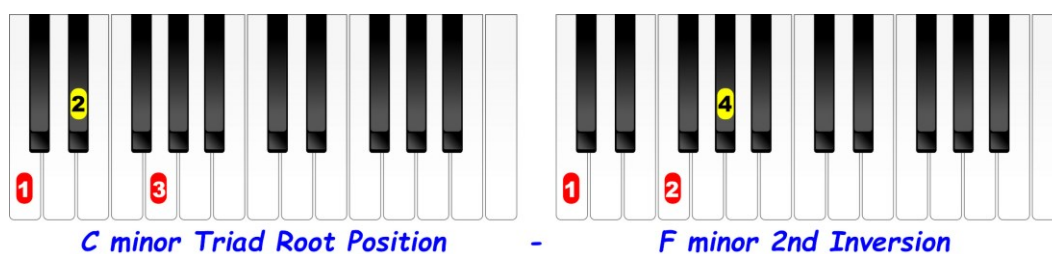


I must stress that these are not ‘rules’, just ‘guidelines’. If you feel more comfortable using your 5th finger on the black 7th keys, then do so. But in all cases when the span is a full octave as in the full (4 note), chords then the 5th finger will *generally* be used at the top on both white and black notes.

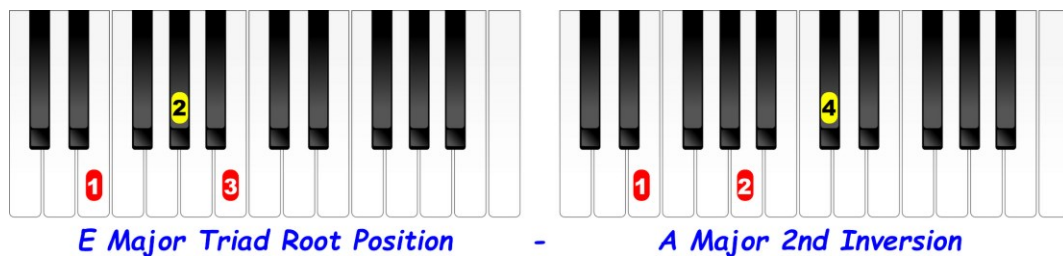
Ok, so now we’ll look at some alternatives which are commonly used when changing to other chords. The example below shows the **C major triad** changing to **F major** - the common **I - IV** progression. By using this fingering, a smooth change can be made, particularly if sustaining the ‘C’ throughout.



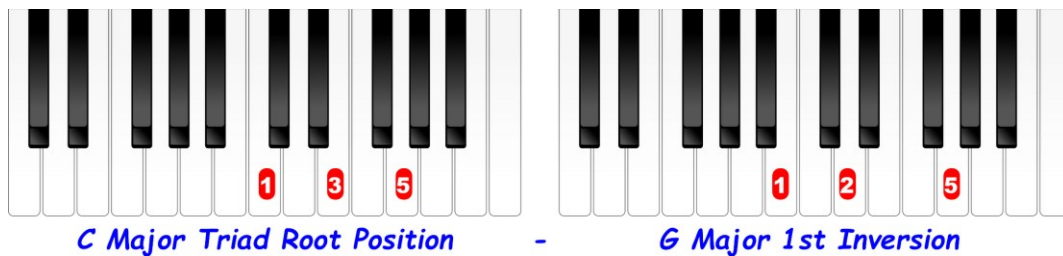
But for **C minor** to **F minor**, the fingering would alter as shown next. This is *not* because the chords are minor rather than major, but simply because of the way the black notes fall.



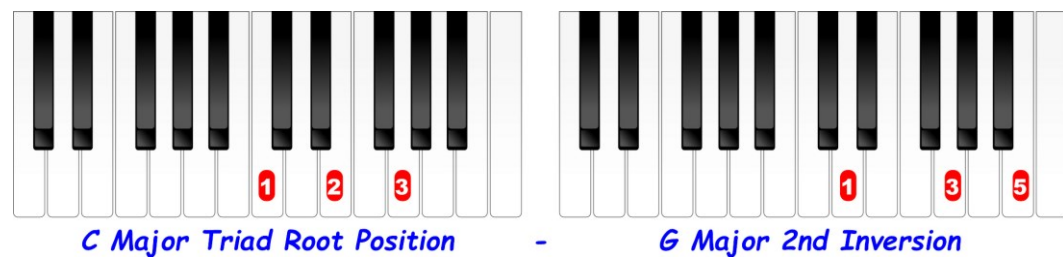
Notice that the fingering for **E major** to **A major** is exactly the same due to the black notes falling in the same relative positions - remember it’s nothing to do with the major / minor difference!



Another most common progression is the **I - V** as shown below using **C major** 'root position' to **G major** '1st inversion'.



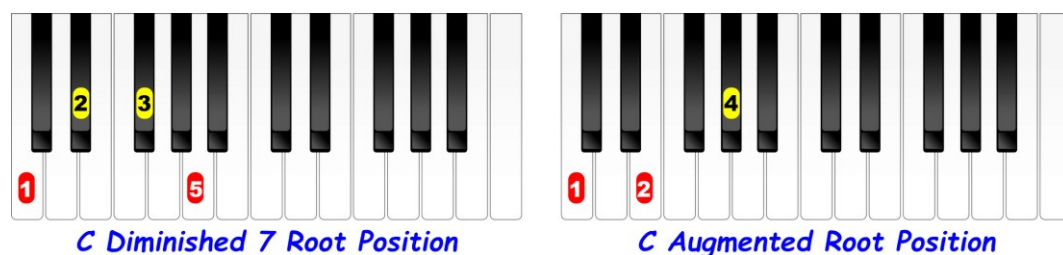
If progressing to the '2nd inversion' as shown next, notice that using a different fingering on the first triad is more suitable.



In all the progression examples given, note that at least one of the notes between the two chords remains the same, which assists a smooth transition. Obviously, this is not always possible, but whenever it is, it's a good idea.

Another way of ensuring a smooth transition is to 'place' unused fingers over one or more notes of the next chord in preparation. For instance, the 5th finger could be hovering over the 'B' in the last example which means only the 1st finger has to do any movement!

And finally, the root positions of the **C diminished 7th** and **C augmented** triad.



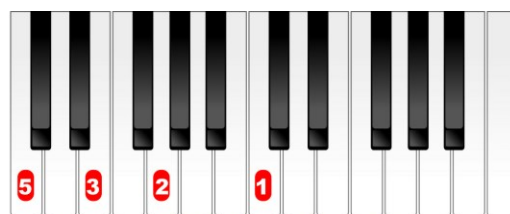
Left-Hand Chord Fingering

Now obviously your left-hand is going to be completely different. The same sort of variations will apply - but differently. You might think that the fingering is simply 'mirrored', but it's not, as although your hands are mirrored, the keyboard is not!

Here's the same chords and progressions but with suggested **left-hand** fingering.



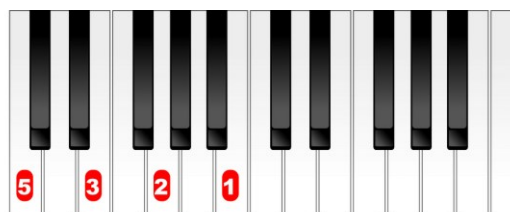
C Major Triad Root Position



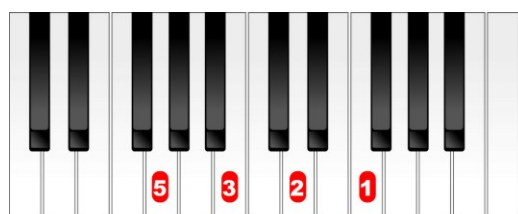
C Major Full Chord Root Position



C7 - Root Position



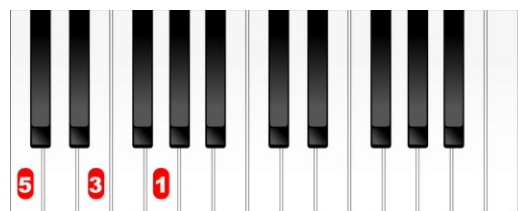
CM7 - Root Position



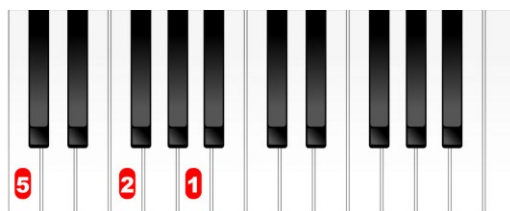
G7 - Root Position



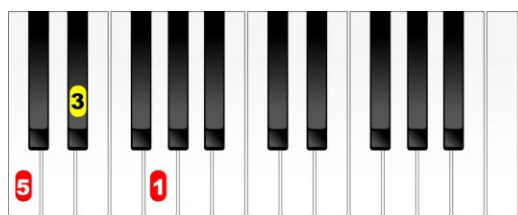
GM7 - Root Position



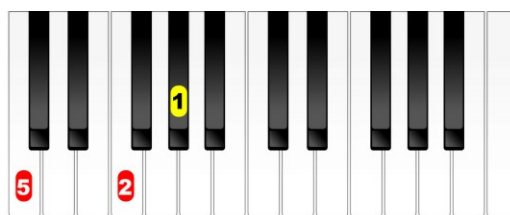
C Major Triad Root Position



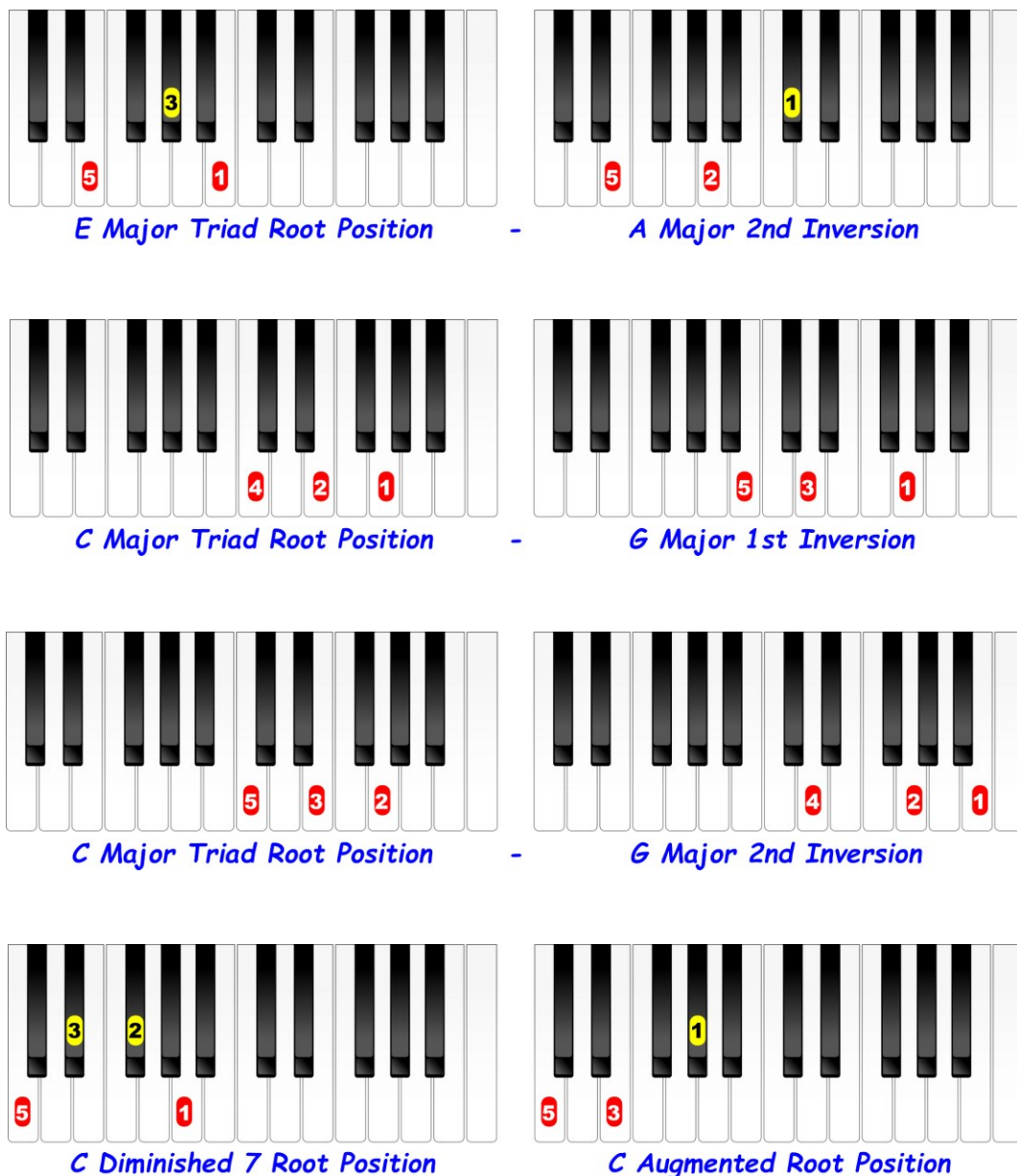
F Major 2nd Inversion



C minor Triad Root Position



F minor 2nd Inversion



If you've been paying attention, you will have noticed that there are not so many variations with the left-hand fingerings as with the right hand. This is something that surprised me, and that I was not consciously aware of until I wrote this section.

Anyway, so hopefully now you've got the idea and can now relate all this information to other chords. But remember it's not written in blood, these fingerings work well for me, but to be honest I've seen other really good musicians who use what appears (to me) to be crazy fingering, but it works for them.

There are no audio files for this chapter.

← Chord Sequences →

As already mentioned, every musical piece is constructed around a sequence of chords which may be extremely complex or very simple consisting of as few as two or three chords. But do remember that just because a piece may be complex with many chords this would certainly not necessarily make it more pleasing to listen to. In fact, very often simple is best! Even some of the greatest classical compositions are based around only a few chords.

You've no doubt heard the term '*three chord wonders*' referring to songs with only three chords, and if this is the case you can more or less guess that they will be the **tonic (I)**, the **subdominant (IV)** and the **dominant (V)** - **C**, **F** and **G** in the key of **C major**.

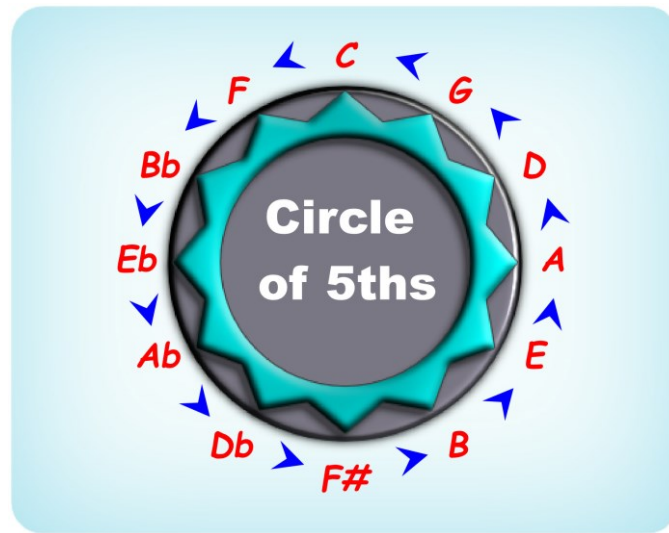
The most common sequence using these three chords is the '*12 Bar Blues*' which is shown below but note that there are many variations of this.

The image displays a 12-bar blues progression in C major, written in 4/4 time. The first staff contains measures 1 through 6, and the second staff contains measures 7 through 12. Each measure is represented by a treble clef staff with a chord symbol above and a Roman numeral below. The progression is: C (I), F7 (IV7), C (I), C (I), F (IV), F (IV) in the first staff; and C (I), C (I), G (V), F7 (IV7), C (I), C (I) in the second staff.

Whether you are aware of it or not you will have heard this sequence thousands of times.

As previously mentioned the strongest of all progressions is **V7 - I (G7 - C in C major)** and the second strongest is **IV - I (F - C)**, hence the reason that these three chords are used so often. Now if you think about it, **I - IV (C - F in C major)** is also a **V - I** progression in the key of **F major**. Or to put it another way the progression is the interval of a perfect 5th descending or a perfect 4th ascending, which amounts to the same thing.

If after making this progression (**G - C**), we continue with this interval again, we'd get **C - F**, then **F - B flat** etc. Carry on doing this and it will take you through the '*chromatic circle of 5ths*' as shown below. And this takes us through the full spectrum of major chords and keys and eventually returns to **C major**.



End of Preview

