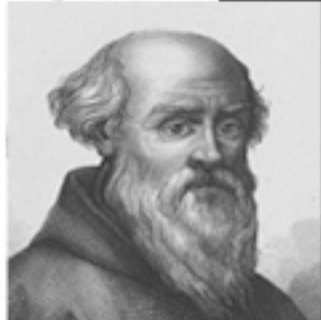




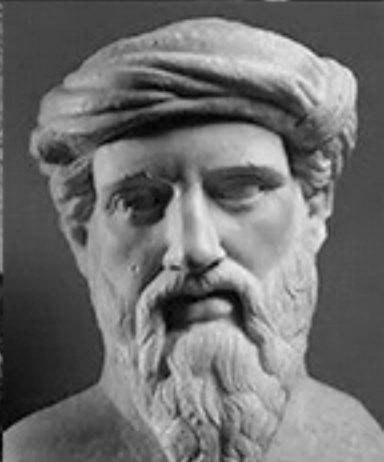
sona-re fibris

u-li tu-ó-rum,

i-re-á-tum, Sánct



SCALES  
AND  
CHORDS  
FOR BARITONE  
UKULELE



# Scales The C Scale

You have played many songs in the key of C major. C is the **root** note, begin there. This key, C major has a scale consisting of the notes **C D E F G A B C**. You could play the scale only using the second string - B string

Starting at fret 1 for C, go up 2 frets, play D. Then go up 2 more, then 1, 2, 2, 2, 1

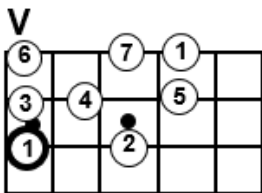
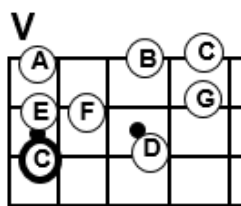
Look above at the notes on a piano, they help to remember that there is **no note** between E and F or B and C - only 1 step between these notes, but there are 2 steps between the others, as in C step1 C# step2 D

**C C# D D# E F F# G G# A A# B C All the notes (the chromatic scale)**

**C 2 D 2 E 1 F 2 G 2 A 2 B 1 C C scale**

**2 2 1 2 2 2 1 Steps - this works for any major scale**

You could also play the C scale using strings 3, 2 and 1 and move across the neck Practice this and learn where C D E G A and C live. Look at the notes at the 5<sup>th</sup> fret What numbers relative to the scale do these notes represent? **C D E F G A B C**



Practice the C scale until you can play it ascending and descending without looking.

## Steps...vs tones, semi-tones and whole notes

I have chosen to call each increment between notes of the chromatic scale a step. The method traditionally taught to discuss musical increments uses the terms whole tone (two ½ tones) and half tone(or semi)tone. This ends up being a bit confusing, because you have to count the number of tones and half tones.

The frequency of the 12 notes in a chromatic scale are each separated by approximately 1/12<sup>th</sup> of an octave— therefore, each note of the chromatic scale **C C# D D# E F F# G G# A A# B** is separated by what we will hereafter call **a step – same as one fret**. So, if someone wants to use the term whole tone, we understand them to mean 2 steps. So, a ½ tone is a step, and we will dispense with the terms whole and half tones until we understand the scale.

This method of deriving the major and minor scales is so useful for knowing which note of the scale is being used, chord understanding, transposing, sorting out which sharps or flats are present in various keys. You will never regret memorizing the # **221-2221** sequence.

Songs are also written sometimes in minor keys you can still use 221-2221 and start on the 6 note – but, let's leave minor keys out for now.

Let's apply 221-2221 to the key of G and find the **G major scale**

G G# A A# B C C# D D# E F F# G **All the notes (the chromatic scale)**  
**G A B C D E F# G Use 221 2221 to find G major scale (one #, F#)**  
2 2 1 2 2 2 1

To find the scale in **F major**: first write all possible notes

F Gb G Ab A Bb B C Db D Eb E F  
**F G A Bb C D E F F major scale (one flat, Bb)**  
2 2 1 2 2 2 1

Let's use the resultant scales to transpose music:

If we wanted to transpose from the key of **C** to the key of **F**,

**C D E F G A B C C scale** One would take each note or chord from the score  
**F G A Bb C D E F F scale** in C and substitute the corresponding in F

## 221-2221 – a key to finding musical scales

# Chords – Know the key and the scale, and the chords follow

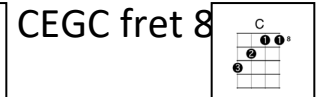
The key of C major describes a scale with the notes **C D E F G A B C**

We could assign a number to each note relative to C **1 2 3 4 5 6 7 1**

**C E G C**

If we start at C and choose every other note, we get a **C major chord, C E G - 1,3,5** (3 notes – a triad) Play one, skip one, play one, skip one, play one. Begins again at 1

For the ukulele, we have 4 strings, so one note can be repeated, yielding different combinations also known as inversions- a different order of the notes of the chord that will have a different sound C, for instance EGCE at nut



Remember how we found the correct notes for the

Notes for the scale in **F**: first, all possible notes **F Gb G Ab A Bb B C Db D Eb E F**

use the formula for the steps major scale 221-2221 **F 2 G 2 A1Bb 2 C 2 D 2 E1F**

The F major scale is **F G A Bb C D E F**

Assign numbers **1 2 3 4 5 6 7 1**

**The major chord is the 1, 3, 5**

The F major chord is **F A C**

The G major chord is **G B D**

F major scale

**F G A Bb C D E F**

**1 2 3 4 5 6 7 1**

**F A C F**

**1 3 5 1**

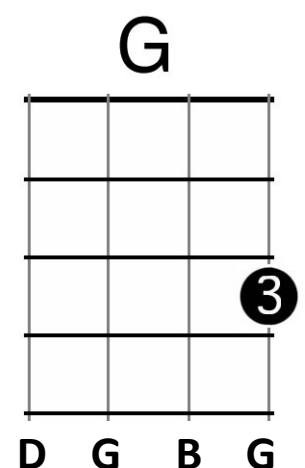
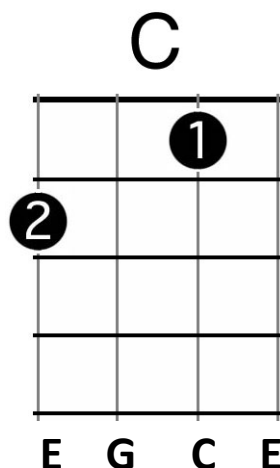
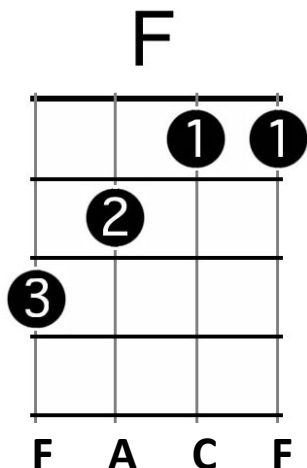
G major scale

**G A B C D E F#G**

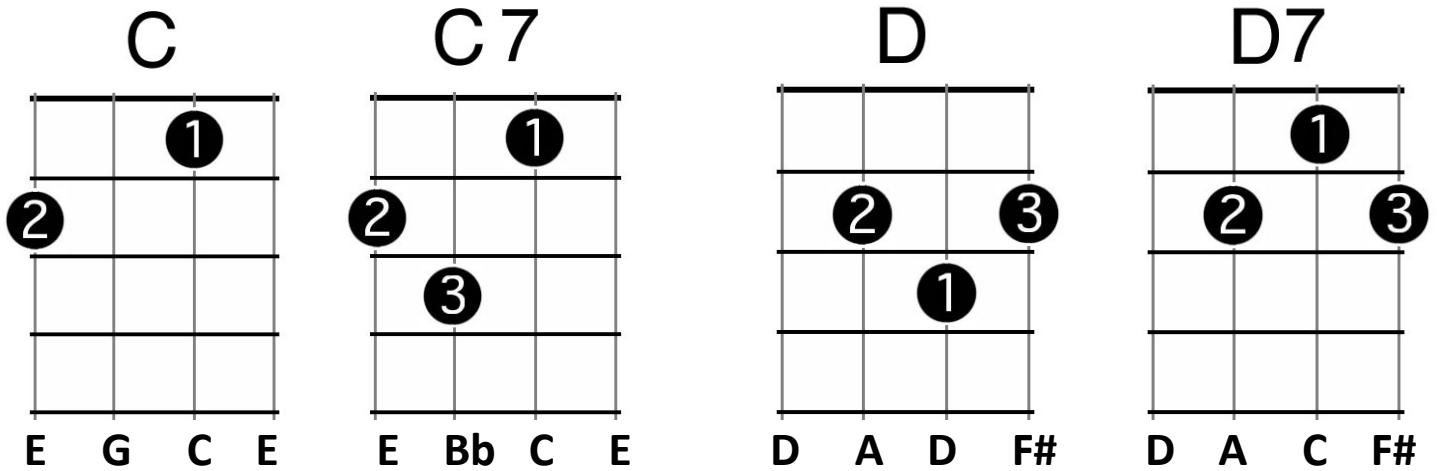
**1 2 3 4 5 6 7 1**

**G B D G**

**1 3 5 1**



# Chords - Dominant 7th chord (or 7th chords for short)



To make a **7th chord**, add a 4th note to the triad - the flatted 7th note- 2 steps lower than the C. Changing the C on the first string to Bb gives a **C7 chord GCEBb**  
 The 7<sup>th</sup> is also called a "dominant" 7th chord" - not so important why just now

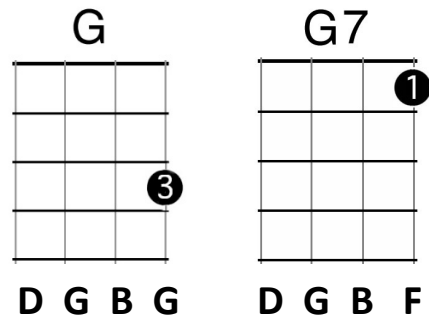
C	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B	C
<b>C</b>		<b>D</b>		<b>E</b>	<b>F</b>		<b>G</b>		<b>A</b>		<b>B</b>	<b>C</b>
<b>C</b>			<b>E</b>			<b>G</b>			<b>Bb</b>			
<b>1</b>		<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>b7</b>	<b>7</b>	<b>1</b>			

**C Major chord**

**C7chord**

These 7th chords have inherent tension - the 7 chord wants to resolve to the tonic (I chord). See image below for the **G7** chord at the nut - a G7 includes the flatted 7th ( **F** ) therefore changing GDGB to GDFB

G	A	B	C	D	E	F#	G	G major scale
1	2	3	4	5	6	7	1	Numbered
<b>1</b>	<b>3</b>	<b>5</b>	<b>b7</b>	<b>1</b>	<b>Gmaj chord plus</b>			
<b>G</b>	<b>B</b>	<b>D</b>	<b>F</b>	<b>the flat 7 F =G7</b>				



The D major scale is	<b>D</b>	<b>E</b>	<b>F#</b>	<b>G</b>	<b>A</b>	<b>B</b>	<b>C#</b>	<b>D</b>
Again, assign numbers	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>1</b>
<b>D major chord</b> is 1, 3, 5 .....	<b>D</b>	<b>F#</b>	<b>A</b>	<b>D</b>				

Using the method for a 7th chord by adding the flatted 7 note, **F7=F A C Eb**  
**D7 chord** is 1, 3, 5 b7.... ..... **D F# A C** - see chord shape above

Chords are made by adding to or modifying the major chord - 1, 3 & 5

Chord	Note							
major	1		3		5			
minor	1		b3		5			
7	1		3		5		b7	
M7	1		3		5		7	
m7	1		b3		5		b7	
9	1		3		5		b7	9
6	1		3		5	6		
m6	1		b3		5	6		
7b5	1		3		b5		b7	
dim	1		b3		b5			
dim7	1		b3		b5	6	=bb7	
aug	1		3		#5			
sus4	1			4	5			
sus2	1	2			5			
6/9	1		3		5	6		9

Chord names define the chord. Find the note in the scale of the key of the chord.

## Chords – Harmonizing the major scale

Take the C major scale and use each note as the 1 note (root) of a chord and stack thirds - (play - skip - play- skip - play) as chords. Start with C, CEG is a C major chord. DFA is a D minor chord. EGB is Em. FAC is F major, GBE is G major...

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>1</b>
<b>1</b>	C	D	E	F	G	A	B	C
<b>3</b>	E	F	G	A	B	C	D	E
<b>5</b>	G	A	B	C	D	E	F	G
<b>Chord</b>	<b>I</b>	<b>ii<sup>m</sup></b>	<b>iii<sup>m</sup></b>	<b>IV</b>	<b>V</b>	<b>vi<sup>m</sup></b>	<b>VII<sup>dim</sup></b>	<b>I</b>
<b>Chord</b>	<b>C</b>	<b>D<sup>m</sup></b>	<b>E<sup>m</sup></b>	<b>F</b>	<b>G</b>	<b>A<sup>m</sup></b>	<b>B<sup>dim</sup></b>	<b>C</b>

These chords in sequence, C Dm Em F G Am Bdim C is called a chorded scale, or a harmonized scale. It demonstrates how the major, minor and diminished chords are determined built on a major scale.

I IV V

You are likely already familiar with chord progressions in the key of C – C F G Roman numerals are used for major chords-lower case for minor (ii,iii and vi). You could count it out on your fingers counting from the I to find the IV and V. Suppose you wanted to change key and play in the key of G? Use the G scale, count it out and you'd have G as the I chord, C as the IV and D as the V chord.

Once you know the key you are playing in, then you will be able to find the scale and you'll know the chords as above. To find the key, look at the score for the number of #’s and b’s. If tabs only, the last and sometimes first chords of the song are often the key of the song. Then, look for the other chords used to confirm that they fit the harmonized scale of your proposed key. Seeking out transitions between the V7 moving to the I chord can also reveal the root, or I.

Feel the nature of the I chord (home), IV chord (away) V chord (tension)

The 7<sup>th</sup> chord increases tension even more - the V chord wants to resolve to the I chord

## Chorded Scales for the Most Common Keys

Key	I	ii	iii	IV	V	vi	vii <sup>0</sup>	#/b's
C	C	Dm	Em	F	G	Am	B <sup>0</sup>	None
G	G	Am	Bm	C	D	Em	F# <sup>0</sup>	1 # F#
D	D	Em	F#m	G	A	Bm	C# <sup>0</sup>	2 # F#C#
A	A	Bm	C#m	D	E	F#m	G# <sup>0</sup>	3 # C# F#G#
E	E	F#m	G#m	A	B	C#m	D# <sup>0</sup>	4 F#C#G#D#

This chart shows the chorded scales in the most common keys - C, G, D, A, and E. The superscript<sup>0</sup> is used to represent a diminished chord. I might want to play a song in a different key to fit my vocal range and instrument or to voice chords differently for effect or ease of play. After I have found the new key, I can transpose the song.

To find your vocal range, sing the notes as you play the scale from C up to high A while you play them. At some point, you will find the limit. Then if you have low G ukulele, sing from C down to G. Then, you can play the melody to determine the range of the song to see if you need to transpose.

Baritone ukulele is easiest to play in the keys of G and E. There are notes from the G chord GBD on the open strings DGB and so either mute or fret the first string at the third fret to make it DGBG. To make a E chord. Fret the 4<sup>th</sup> string at the 2<sup>nd</sup> fret and the 3rd string at the first fret – the open strings are B and E that are in the chord, E. There are so many songs written on a guitar that are in the keys of G and E.

One way to transpose - write the original key scale C major C D E F G A B C and then below, the new key – in this case, G major G A B C D E F# G

This works for notes and chords, and when transposing chords, the minor follows.

It is best to number the minor chords using lower case I ii iii IV V vi vii<sup>0</sup> I

For each chord in your original song in C, substitute the new chord from the key of G for the original one from the key of C. One could just write the song sheet out with the numbers instead of letters and decide on the key depending on the range of the singer. Let's practice this technique on a couple of songs...



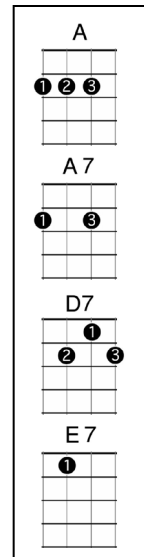
Let's try a Blues song – may have 7<sup>th</sup> chords used for the I and IV as well as the V

That's Alright Mama

Strum=dD

First note=A

Range=A3-C5



A

Well, that's alright, mama, that's alright for you

A

A7

That's alright mama, just anyway you do

D7

Well, that's alright, that's alright.

E7

A

That's alright now mama, anyway you do

What are the chords? A A7 D7 E7

First, what key? .... A

I I7 IV7 V7

Now in C major? Scale-C Dm Em F G Am B<sup>0</sup>C

New chords C C7 F7 G7

I ii iii IV V vi vii I

Range=C4-Eb5

Listen for some great licks from the YouTube Elvis version with Scotty Moore

A Teenager In Love

Strum D DU UD

First note=G

C

Am

F

G7

Range=F-C

Each time we have a quarrel it almost breaks my heart

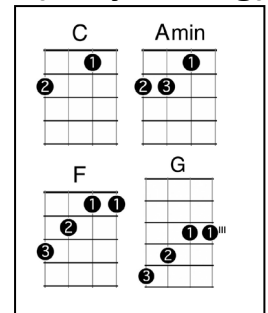
(easy to sing)

C

Am

F

G7



Cause I am so afraid that we will have to part

C

Am

F

G7

Each night I ask the stars up above

C

Am

F

G7

Why must I be a teenager in love?

What is the sequence? C Am F G7

First, what key? Easy...C. The vocal range is narrow –. I vi IV V7

The I vi IV V7 sequence is also known as the Doo Wop sequence and there are many songs built on it, many from the 1950's such as Duke of Earl. Let's see in F.

Now in F major? Scale-F Gm Am Bb C Dm E<sup>0</sup>

New chords F Dm Bb C7

I ii iii IV V vi vii

First note-C - Range=Bb-F

Now, let's further exercise our understanding of use of numbered chords.

# Like A Rolling Stone

Bob Dylan

Intro C F C I IV I

Strum=D DU UD

First note=C

C Dm  
Once upon a time you dressed so fine

Em F G  
You threw the bums a dime in your prime, didn't you?

I iim  
People'd call, say, "Beware doll,  
iim IV V  
you're bound to fall" You thought they were all kiddin' you

F G  
You used to laugh about  
IV V  
Everybody that was hangin' out

F Em Dm C  
Now you don't talk so loud  
IV iim iim I  
Now you don't seem so proud

Dm F G  
About having to be scrounging for your next meal.

C F G  
How does it feel

I IV V  
How does it feel

C F G  
To be without a home

I IV V  
Like a complete unknown

C F G  
Like a rolling stone

I	ii	iii	IV	V	vi	vii <sup>0</sup>	I
C	Dm	Em	F	G	Am	B <sup>dim</sup>	C
F	Gm	Am	Bb	C	Dm	G <sup>dim</sup>	F