

CHAPTER 18

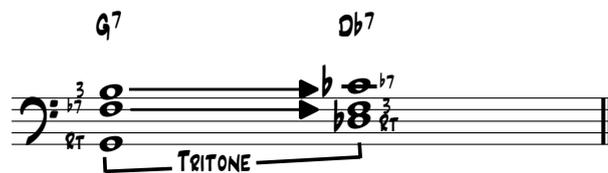
Tritone Substitution

A tritone is the interval of the augmented 4th (also referred to as $b5$ and $\#11$) and gets the name tritone because of its equal intervallic distance of three whole tones. The tritone is the only interval besides the octave that remains the same when inverted. Therefore, $F\#$ is the tritone of C and C is the tritone of $F\#$. The interval of a tritone divides the octave exactly into one half. A tritone exists in every major scale between the 4th and 7th degrees. There are only two chords in major harmony that contain both the 4th and 7th degrees, which are the $V7$ and the $VII-7(b5)$.

In every $V7$ chord a tritone exists between the 3rd and the $b7$ th of the chord. These notes are known as 'guide tones' and define the chord's quality. There is an immediate connection with the 3rd and the $b7$ th in relation to the dominant 7th chord and its most common substitution chord- the tritone substitute.

A tritone substitute is created by moving the bass note of a $G7$ ($V7$) chord to a new chord a tritone away, which will become a $Db7$ chord. The 3rd and the $b7$ th of the $G7$ invert and become the $b7$ th and the 3rd of $Db7$.

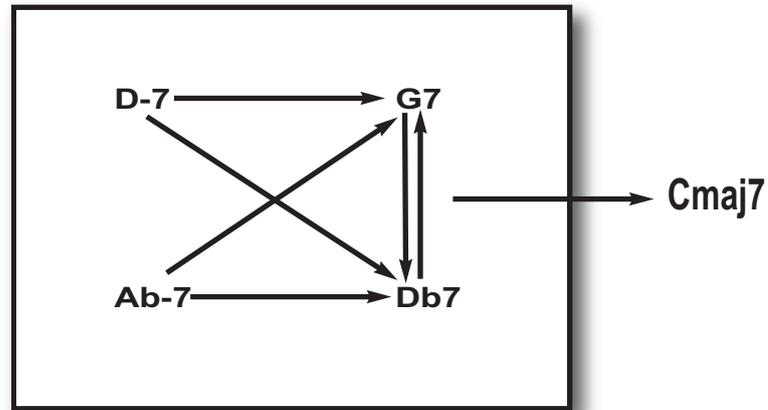
So, if we take a look at this, you will see that the 3rd and the $b7$ th for $G7$ and $Db7$ are the same, but are reversed. The 3rd of the $G7$ is identical to the $b7$ of the $Db7$ ($B=Cb$). The $b7$ th of the $G7$ is the same as the 3rd of $Db7$ ($F=F$).



Therefore, you can now substitute any dominant 7th chord for another dominant 7th chord a tritone or $b5$ th away from each other. The fact that these two chords have identical 3rds and 7ths (inverted) and possess strong root motion validates the interdependency of these two chords working together as substitutions for one another. The $Db7$ is therefore a substitute for $G7$. Now, even though the $SubV7$ is derived from the $V7$ of the moment, in Roman numeral analysis, you would label this as $SubV7$ resolving to the I chord. This not only allows substitution, but also permits the two related dominant 7th chords to be used in succession: $V7$ $SubV7$ I or $SubV7$ $V7$ I .

It is important to understand that you can also place a related II -7 chord in front of any dominant 7th chord to create a II -7 V7 progression.

The following Sub V7 Box is written in C major:



Learning Tip: Write out the Sub V7Box above in every key!

The following chord progressions can be derived from these principles:

1. D -7 G7 C maj7
2. D -7 Db7 C maj7
3. D-7 Ab -7 Db7 C maj7
4. D-7 Ab -7 G7 C maj7

The following set of exercises will enable you to hear, understand and apply the tritone substitution concepts in walking bass lines. This introduces the concept of “Inside-Outside-Inside” where the D-7 and the Cmaj7 act like bookends to represent the “inside” sound and the tritone substitution combinations act as the “outside” element. Make sure you learn all four bass lines in every key.

Ex. 1

II-7 V7 IMAJ7
D-7 G7 Cmaj7

Ex. 2

II-7 SUB V7 IMAJ7
D-7 Db7 Cmaj7

Ex. 3

II-7 REL II-7 SUB V7 IMAJ7
D-7 Ab-7 Db7 Cmaj7

Ex. 4

II-7 REL II-7/SUB V7 V7 IMAJ7
D-7 Ab-7 G7 Cmaj7

Learning Tip: It's important to understand that any dominant 7th chord despite its function, can have a tritone substitute. This applies to secondary dominants and extended dominants as well as diatonic V7 chords. **The key to being able to recognise tritone substitutes is that they will appear a half step above the chord to which they are resolving to.**