

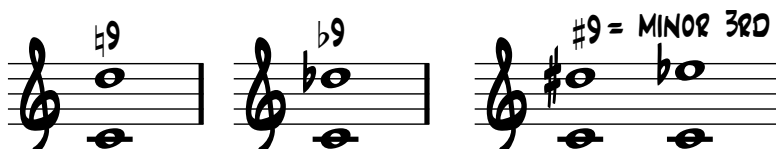
### Section 4.1.9

## ALTERATIONS OF CHORD EXTENSIONS

### Unaltered extensions

An extension (ninth, eleventh, or thirteenth) is **unaltered** if it follows the major scale built on the root of that chord. Extensions may be lowered or raised a half step by changing the accidental. Lowered extensions are **flatted**, and raised extensions are **sharped**. So a natural ninth (or **natural nine**) follows the major scale built on the chord root, a flatted ninth (or **flat nine**) means a lowered ninth, and a sharped ninth (or **sharp nine**) means a raised ninth. Remember: a ninth is the same as a second.

- Natural nine
- Flat nine
- Sharp nine



- Natural eleven
- Sharp eleven

An eleventh is the same as a fourth. A **natural eleventh** (or **natural eleven**) always means follow the major scale, and **sharp eleventh** (or **sharp eleven**) means raise the eleventh a half step, regardless of the accidentals used.



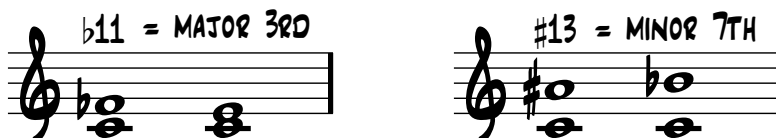
- Natural thirteen
- Sharp thirteen

A thirteenth is the same as a sixth. A **natural thirteenth** (or **natural thirteen**) always means major sixth, and **flat thirteenth** (or **flat thirteen**) means lowered thirteenth, regardless of the accidentals used.



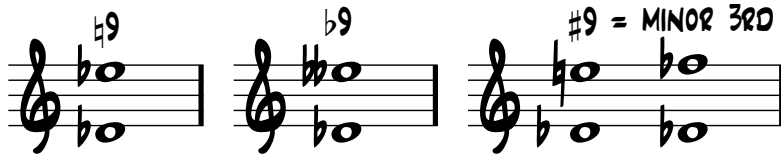
- Flat eleven
- Sharp thirteen

Flat eleven and sharp thirteen are never used. A **flat eleven** is the same as a major third, and a **sharp thirteen** is the same as a minor seventh.



**Spelling alterations**

Depending on the root, unaltered (natural) extensions may actually use naturals, flats, sharps, or even double flats or double sharps. In the example below, a natural ninth above D flat is actually E flat, because a D flat major scale uses E flat, not E natural. For extensions, flat means “the major scale version lowered a half step,” and sharp means “the major scale version raised a half step,” no matter what the actual accidentals are.



**All the possible alterations**

Because flat eleven and sharp thirteen are enharmonic with the major third and minor seventh, only four altered extensions are possible: flat nine, sharp nine, sharp eleven, and flat thirteen.

