The interdental osteotomies are performed with a fissure burr or a piezoelectric saw, directed perpendicular to the dental arch. If the dentoalveolar segment is moved cranially, the lines should not be convergent. In cases with convergent dental roots, a special orthodontic pretreatment must be performed to allow for safe interdental osteotomies. The mental nerves are identified and protected. The horizontal cut is made using a reciprocating saw and is situated 3–5 mm inferior to the dental apices. Thin osteotomes are used to mobilize the block.

When the dentoalveolar segment is mobile, the acrylic splint is placed, the segment is gently moved to the planned position, the bone graft is positioned and MMF is carried out, if necessary for fixation. X-, T-, L-, H-shaped 2.0 or 1.5 or Matrix miniplates can be used. Two 4-hole plates are enough to stabilize most bone blocks. Vertically positioned plates are stable and tilting movements are well prevented. Injuring the dental roots should again be avoided.

3 Genioplasty

To harmonize the profile and to make vertical dimensions of the face more favorable, a genioplasty may be indicated. It can be combined with some other type of osteotomy and can be performed simultaneously in the same session or at the second stage. When advancing a mandible with a huge distal bite by BSSO, the stretching forces of soft tissues can cause a relapse of genioplasty performed in the same session. Any dimension of the chin can be adjusted by this method.

From a transoral incision the bone surface is exposed to the inferior border of the mandible from first molar to first molar. Most surgeons prefer to cut in the mobile mucosa. The mentalis muscles are exposed and dissected separately. The periosteal attachment at the anterior inferior border is maintained to have the soft tissue contour unchanged. The midline is marked before the osteotomy. The osteotomy is performed with a reciprocating saw and a chisel (**Fig 7.2-19a–b**). The angle of the osteotomy is planned according to the planned movement of the fragment (**Fig 7.2-20 a–d**). When increasing the vertical dimension, a bone graft can be positioned into the gap. When increasing the width, the fragment can be split in two or more pieces and bone grafts can be positioned between the fragments (**Fig 7.2-21**).

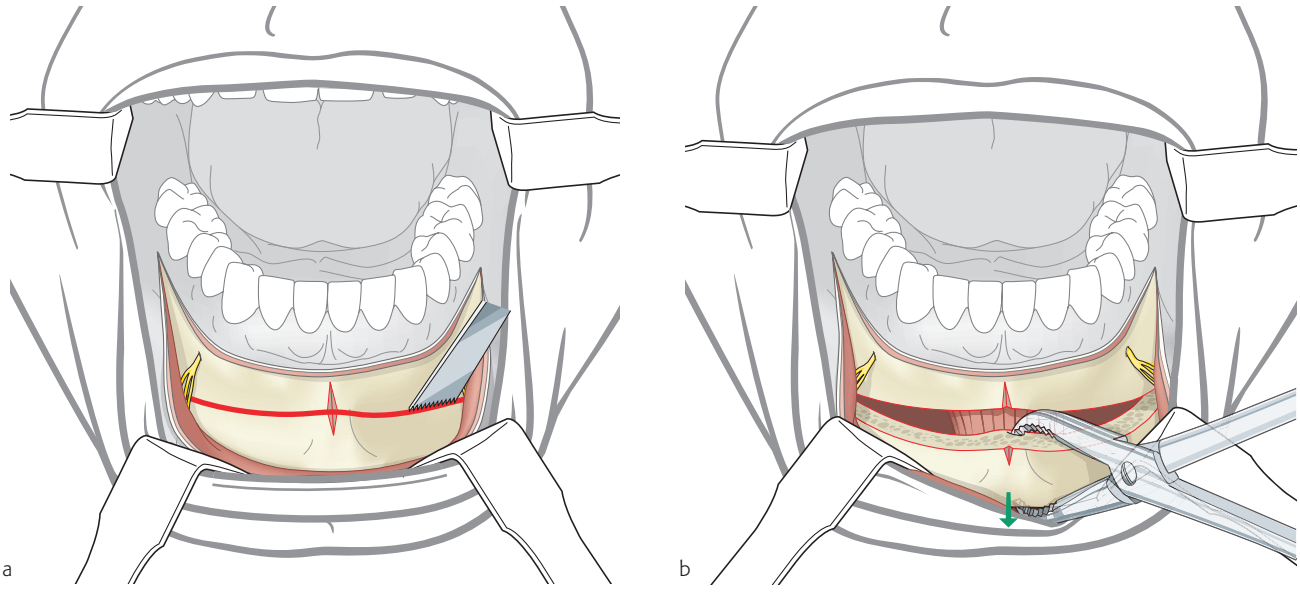

Fig 7.2-19a–b
a Horizontal osteotomy for a genioplasty. Note marking of the midline which is done before the osteotomy.
b After completion of the osteotomy the lower segment is grasped and moved into the desired position.

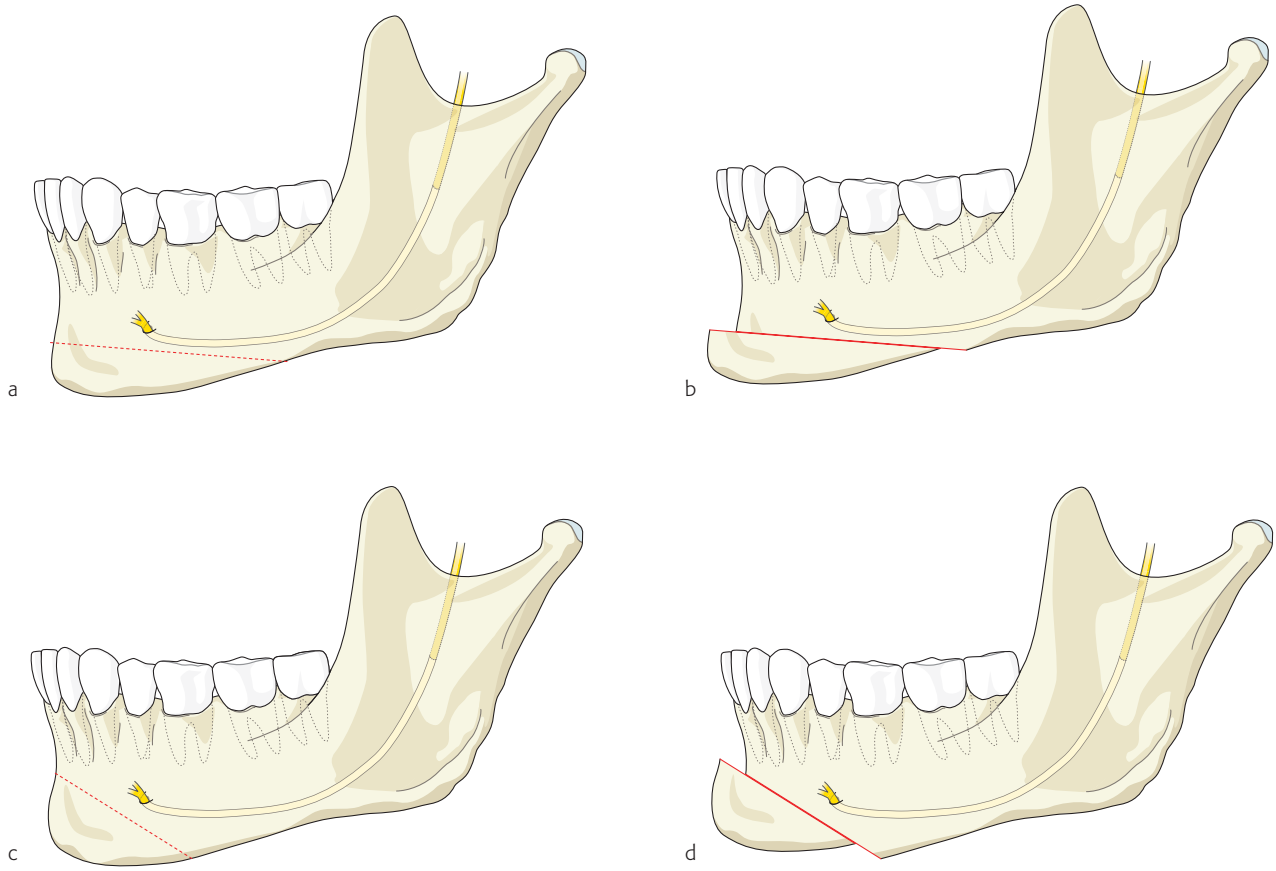

Fig 7.2-20a–d Various markings for osteotomies in the chin area for the various desired movements of the chin.

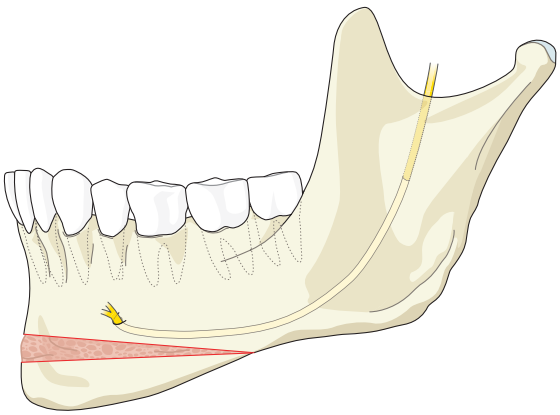

Fig 7.2-21 Genioplasty after increasing the vertical dimension with a bone graft in the osteotomy gap.