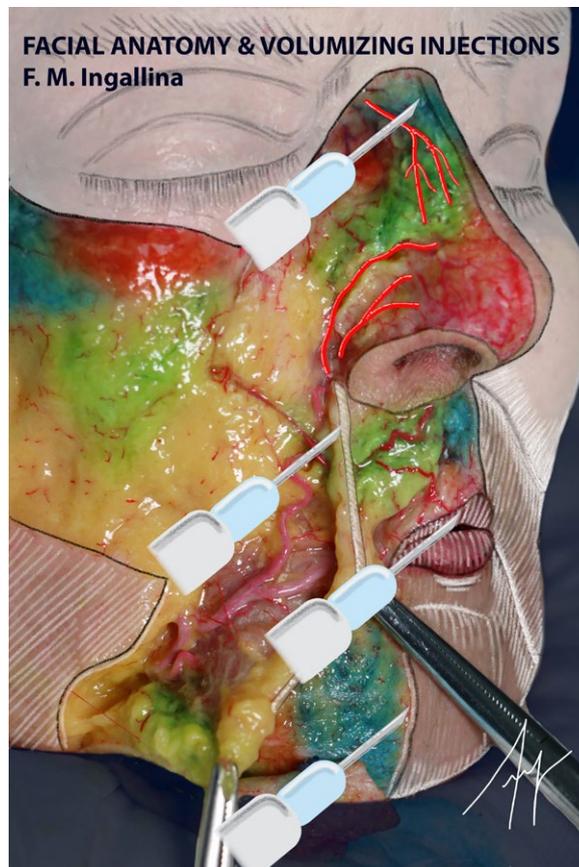


# FACIAL ANATOMY & VOLUMIZING INJECTIONS

3-D PROFILOPLASTY  
NOSE - LIPS - LOWER THIRD



ANATOMY in 3D

AGING & AESTHETIC ANALYSIS  
ADVANCED TECHNIQUES OF INJECTION

**FABIO M. INGALLINA M.D.**



# PREFACE

The *Facial Anatomy & Volumizing Injections* is an attempt to translate and concentrate in a book my experience of several years of conducting cadaver dissection courses and live injections workshops finalized to the teaching of the facial anatomy and filler volumizing injection techniques.

The content of this book can be summarized in a phrase: *How to inject fillers in the face according new anatomical evidences.*

The atlas format is a deliberate choice to make the book easily readable. More than 400 photos and draws will lead the reader by hand in discovering in depth the anatomy useful to inject filler and the more advanced techniques of injection.

The aim is to describe the new anatomy of fat compartments and the subjective anatomical variations directly on cadaver dissections images. The reader will understand where the cannula and the needle penetrate and slide, how to avoid the dangerous zones and improve the quality of his result knowing the topography of the fat compartments.

An important chapter is devoted to the description of the superficial cutaneous landmarks that identify the deep anatomical structures: fat compartments, septa, ligaments, arteries and veins. The reader will be able, identifying the cutaneous landmarks, to create a road map of the upper and the middle third of the face.

Different needle or cannula techniques of injection per each region of the face are analyzed and described in depth.

This book is addressed both to experienced doctors that want deeply improve their knowledge of the anatomy and resident or beginners doctors who want to learn how to inject according new anatomical evidences. I hope it will be useful in your daily activity!!

Fabio M. Ingallina M.D.



## Dr. Fabio M. Ingallina

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Dr. Fabio Ingallina received his Medical and Surgery degree at Catania University in 1992. In 1999 he specialised in Plastic Reconstructive & Aesthetic Surgery, still in Catania, and obtained the Microsurgery University Diploma in the Ecole de Chirurgie Université Paris Nord as well. He practiced in the St. Anne Hospital (Paris) and in Mondor Hospital (Paris), where he participated in the "face transplantation project", he also had a fellow-ship in the Universidade do Estado do Rio de Janeiro with Prof. Cardoso de Castro.

In 2002, Dr. Ingallina became the Head of the Aesthetic and Reconstructive Plastic Surgery Department of the Clinic Di Stefano Velona in Catania.

In the last nine years he participated as docent and he has directly organized several anatomy dissection courses and facial volumizing injections masterclass.

## ACKNOWLEDGEMENTS

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Thanks to my niece Mara Ingallina for her wonderful illustrations in the nose chapter.

I would like to thank my wife Sonia, my son Mario Bruno and my daughter Carla Alice who have endured my absences while writing the book.

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### Notice

This book presents current scientific information; knowledge and best practice in this field are constantly changing. It does not provide advice concerning specific diagnosis and treatment of individual cases and is not intended for use by the layperson.

Readers (Practitioners) are strongly advised to rely on their own experience and knowledge in evaluating and using any information, technique and procedure described herein.

It is the responsibility of the practitioners-readers to make diagnosis and determine the correct dosage and the best treatment for each individual patient.

The author and the publisher will not be responsible for any injury and/or damage to persons or properties related to actions taken as a result of information or opinions expressed in this book.

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## SUPERFICIAL FAT COMPARTMENTS

- LABIO-MENTAL REGION
  1. D.A.O. FAT COMPARTMENT
  2. D.L.I. FAT COMPARTMENT
  3. PARAMENTALIS FAT COMPARTMENT
- POSTERIOR MANDIBULAR REGION

## S.M.A.S.

- ORBICULARIS ORIS MUSCLE
- MENTALIS (+/-)
- DEPRESSOR LABII INFERIORIS
- DEPRESSOR ANGULI ORIS
- PLATISMA

## DEEP FAT COMPARTMENTS

- LABIO-MENTAL REGION
  - RETRO D.A.O. FAT COMPARTMENT
  - RETRO D.L.I FAT COMPARTMENT
  - RETRO-INTER MENTALIS FAT COMPARTMENT
- POSTERIOR MANDIBULAR REGION

## SUPERFICIAL & DEEP LIGAMENTS

## SUPERFICIAL FAT COMPARTMENTS OF THE LOWER THIRD

In the lower third the overlapping of the fat compartments is quite frequent. It creates a wide variability in the shape and in the disposition of the fat compartments boundaries.

In this area the description of the fat compartments topographical anatomy is less accurate.

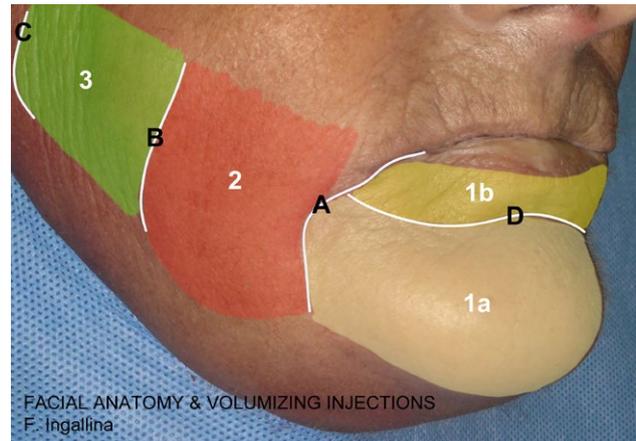
It is only useful to explain better the mechanisms of the aging process, to recognize the pathway of the major vascular axis and to develop a rough pattern of the topography of the fat compartments.

Some boundaries are well defined by septa, originating from the muscle margins and extending to the skin and to the bone. Others boundaries are not so well defined and can be only hypothesized.

For an easier understanding of fat compartments topographical anatomy, it is preferable to divide the lower third of the face into three anatomical – aesthetic macro-units:

- 1) The Labio-mental Region.
- 2) The Jowl Region.
- 3) The Posterior Mandibular Region.

In the labio-mental region the knowledge of the topographical anatomy of the fat compartments is slightly more accurate than in the jowl and in the posterior mandibular region. It is related better with some well-known cutaneous landmarks, indicating the disposition of septa and the pathway of major vessels.



### IMAGE 01

#### 1. Lower lip - Chin region (Labio-mental region) (Yellow)

A - External landmark: Cheek - Chin crease

D - External landmark between lower lip (1b) and chin (1a): Horizontal labio-mental fold.

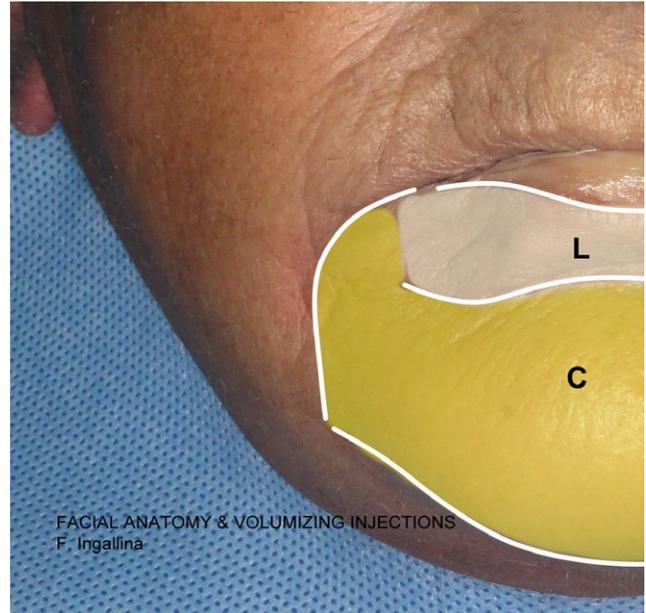
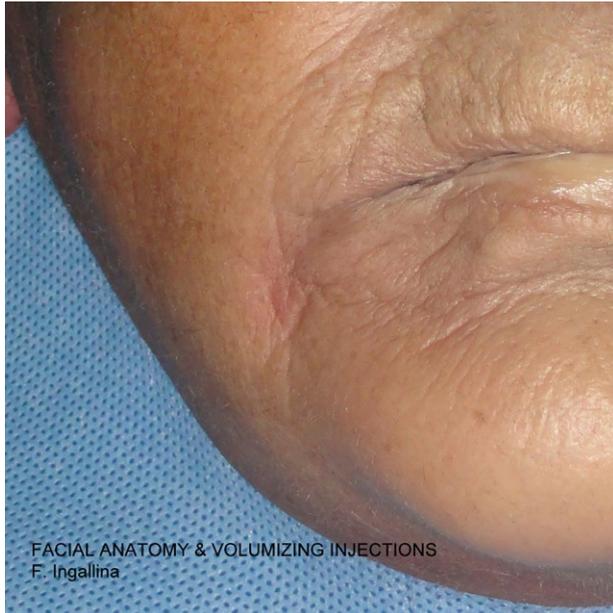
#### 2. Jowl region (Red)

B - External landmark: Anterior margin of the Masseter muscle.

#### 3. Posterior mandibular region (Green)

C - External landmark: posterior border and angle of the mandible.

# LABIO-MENTAL REGION



## IMAGE 02

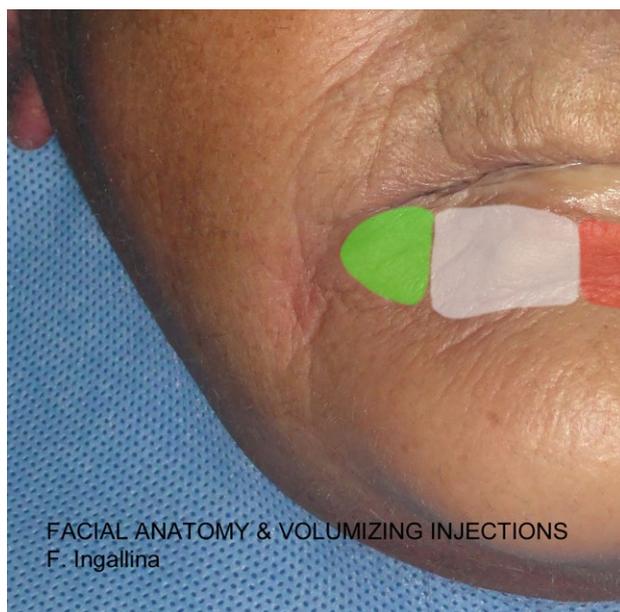
The external landmarks that identify the anatomical boundaries of this region are:

1. Laterally: the cheek-chin fold.
2. Inferiorly: the inferior border of the mandible.
3. Superiorly: the vermilion-cutaneous junction.

The external landmark that defines the "lower lip - chin boundary" is the horizontal lip-chin crease (Labio-mental horizontal fold).

## 1. SUPERFICIAL FAT COMPARTMENTS OF THE LABIO-MENTAL REGION

### A. INFERIOR LIP FAT COMPARTMENTS



## IMAGE 03

- Median Lower Lip Fat (Red).
- Middle Lower Lip Fat (White).
- Lateral Lower Lip Fat (Green).