## GOMEZ ESP

## TRATHLON:


70.3 MILES - SWIM/BIKE/RUN

HENRY ASH is a triathlete who has actively contributed to the development of the nonstop ultra endurance triathlon over the past 33 years. During this time, he has written 20 sports books that have been published worldwide. His famously clear writing has enabled him to become a coach, training companion, and motivator for a great many triathletes. He himself has completed more than 320 triathlons around the world, including the Hawaii Ironman ${ }^{\circledR}$ ( 3 times) and 38 other Ironman ${ }^{\circledR}$ competitions.


MARLIES PENKER has been an enthusiastic triathlete since 1999. Her long distance personal record is 9:18.49 hours. She has successfully completed all distances from Olympic short distances to the long distance. In addition, she also holds the Carinthian (Austria) Regional Marathon record at 2:45.08 hours.

Triathlon: Half-Distance Training

# TRIATHLON: HALF-DISTANCE training 

HENRY ASH|MARLIES PENKER

Original title: Ironman ${ }^{\circledR} 70.3^{\circledR}$ - Triathlontraining für die Mitteldistanz
© 2008 by Meyer \& Meyer Verlag

Translated by Heather Ross

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library
Triathlon: Half-Distance Training
3rd edition of Ironman ${ }^{\circledR} 70.3^{\circledR}$ - Training for the Middle Distance
Maidenhead: Meyer \& Meyer Sport (UK) Ltd., 2009
ISBN: 978-1-78255-752-4

All rights reserved, especially the right to copy and distribute, including the translation rights. No part of this work may be repro-duced-including by photocopy, microfilm or any other means- processed, stored electronically, copied or distributed in any form whatsoever without the written permission of the publisher.
© 2009 by Meyer \& Meyer Sport (UK) Ltd
3rd edition 2016 of Ironman ${ }^{\circledR} 70.3^{\circledR}$
Aachen, Auckland, Beirut, Cairo, Cape Town, Dubai, Hägendorf, Hong Kong
Indianapolis, Manila, New Delhi, Singapore, Sydney, Tehran, Vienna
VKás Member of the World Sport Publishers' Association (WSPA)
SBN 978-1-78255-752-4

E-Mail: info@m-m-sports.com
www.m-m-sports.com

## CONTENTS

FOREWORD ..... 9
1 INTRODUCTION ..... 10
1.1 HALF-DISTANCE TRIATHLON - ONE STEP AT A TIME ..... 10
1.2 THE KEYS TO SUCCESS ..... 12
2 THE APPEAL OF THE HALF-DISTANCE TRIATHLON ..... 14
2.1 FOUR REASONS TO DO THE HALF-DISTANCE TRIATHLON ..... 18
3 THE "FOUR" DISCIPLINES OF THE HALF DISTANCE ..... 20
3.1 SWIMMING: THE APPETIZER ..... 21
3.2 CYCLING: THE MAIN COURSE ..... 22
3.3 RUNNING: THE DESSERT ..... 23
3.4 THE TRANSITIONS: THE INTERMEDIATE COURSES ..... 24
4 HOW TO ENSURE SUCCESS ..... 26
4.1 PROJECT HALF DISTANCE: VISIONS AND DREAMS ..... 26
4.2 SYSTEMATIC TRAINING LEADS TO SUCCESS ..... 27
4.3 TRAINING PERIODS ..... 28
4.3.1 Monthly organization of training ..... 28
4.3.2 Preparation period ..... 29
4.3.3 Competition period ..... 31
4.3.4 Transition period: the time for regeneration ..... 32
4.4 THREE ESSENTIAL TRAINING PRINCIPLES ..... 33
4.5 PLANNING THE TRIATHLON YEAR ..... 34
4.6 YOUR ENVIRONMENT ..... 37
4.7 HEART RATE ..... 39
4.7.1 Threshold training ..... 44
4.7.2 General training structure ..... 45
4.8 CORE AND PERIPHERAL TRAINING ..... 46
4.8.1 Distribution of training volume ..... 47
4.8.2 Training intensities ..... 48
4.8.3 Training loads ..... 48
4.9 REGENERATION AND SUPERCOMPENSATION ..... 50

## TRIATHLON: HALF-DISTANCE TRAINING

4.10 INCREASED STRENGTH AND FLEXIBILITY ..... 51
4.11 TRIATHLONS IN HOT WEATHER ..... 55
4.12 TRIATHLONS IN COLD WEATHER. ..... 56
5 EQUIPMENT FOR THE HALF-DISTANCE TRIATHLON ..... 58
5.1 SWIMMING ..... 59
5.2 BIKING ..... 60
5.3 RUNNING ..... 62
6 TRAINING TO FINISH THE HALF DISTANCE (6:00 HOURS OR MORE) ..... 64
6.1 THE LAST SIX MONTHS BEFORE THE RACE ..... 65
6.1.1 Training month 1 ..... 67
6.1.2 Training month 2 ..... 67
6.1.3 Training month 3 ..... 68
6.1.4 Training month 4 ..... 68
6.1.5 Training month 5 ..... 69
6.1.6 Training month 6 ..... 72
6.2 A PRACTICAL TRAINING EXAMPLE ..... 74
6.3 DAN: "A DREAM COME TRUE" ..... 77
7 TRAINING FOR AMBITIOUS AND PERFORMANCE-ORIENTED ATHLETES ..... 80
7.1 TRAINING FOR AMBITIOUS ATHLETES (A: 5:50-5 HRS) ..... 81
7.1.1 Required race split times ..... 81
7.1.2 Performance-related prerequisites ..... 82
7.1.3 Annual structure ..... 83
7.1.4 The last six months ..... 84
7.1.5 A practical training example ..... 91
7.1.6 Patricia: "I still have so much strength left" ..... 94
7.2 TRAINING FOR PERFORMANCE-ORIENTED ATHLETES (P: 4:50-4:10 HOURS) ..... 97
7.2.1 Required race split times ..... 98
7.2.2 Training example - Oliver. ..... 98
7.3 DORIS: "FLORIDA: BRING IT ON!" ..... 102
8 IMPROVING YOUR PERFORMANCE ..... 106
8.1 FINISH YOUR FIRST HALF-DISTANCE TRIATHLON ..... 106
8.2 AVOID TYPICAL TRAINING ERRORS ..... 110
8.3 IMPROVE YOUR SWIMMING ..... 111
8.3.1 Open water swimming ..... 111
8.3.2 The 12 core swim workouts ..... 114
8.4 IMPROVE YOUR CYCLING ..... 115
8.4.1 First preparation phase (about two months) ..... 116
8.4.2 Second preparation phase ..... 120
8.4.3 Competition phase from May onward ..... 120
8.4.4 The 12 core bike workouts. ..... 122
8.4.5 Extra cycling training tips ..... 122
8.4.6 Cycling training during transition phase ..... 124
8.4.7 Additional cycling tips ..... 124
8.5 IMPROVE YOUR RUNNING ..... 125
8.5.1 Basic endurance training ..... 126
8.5.2 Speed endurance training ..... 129
8.5.3 Competition running intensities ..... 130
8.5.4 Half marathon time calculator ..... 131
8.5.5 The 12 core running workouts. ..... 132
8.5.6 Additional running tips ..... 132
8.6 STRENGTH ENDURANCE TRAINING ..... 133
8.7 REDUCING TRANSITION TIMES ..... 134
9 PERFORMANCE TESTING AND SELF-MOTIVATION ..... 136
9.1 SELF-MOTIVATION ..... 137
9.2 PERFORMANCE TESTING METHODS ..... 142
9.2.1 Attitude ..... 142
9.2.2 Heart rate. ..... 142
9.2.3 BMI values ..... 143
9.2.4 Reduction of body fat percentage ..... 144
9.2.5 Cooper endurance test ..... 146
9.2.6 Improving race times ..... 147
9.2.7 Exercise ECG test ..... 147
9.3 PERFORMANCE TESTING ADVANTAGES ..... 147

## TRIATHLON: HALF-DISTANCE TRAINING

10 RACE WEEK. ..... 148
10.1 NUTRITION ..... 148
10.2 THE BIG DAY ..... 154
10.3 REGENERATION ..... 161
10.4 THE RETURN TO TRAINING ..... 162
11 THE EXPERIENCE OF "FLOW" ..... 164
11.1 WHAT IS "FLOW"? ..... 164
11.2 RECREATIONAL ACTIVITIES ..... 165
11.3 TRIATHLON AND FLOW EXPERIENCES ..... 165
11.4 THE NINE ELEMENTS OF FLOW. ..... 165
11.5 THE DANGER OF FLOW ..... 171
12 ON YOUR MARK, GET SET, GO! MOTIVATION TIPS ..... 172
12.1 MENTAL MOTIVATION TIPS ..... 174
12.2 A SHORT MOTIVATIONAL STORY ..... 176
APPENDIX ..... 178

## FOREWORD

Welcome. This book is a thorough guide to preparing for the most popular triathlon racing distance in the world. Spawned from the renowned Ironman® Triathlon series, the half distance, also called Ironman ${ }^{\circledR} 70.3^{\circledR}$, is booming internationally because these triathlons, raced at half the Ironman ${ }^{\circledR}$ distance over 70.3 miles, provide the challenge of long-distance triathlons but are not as intense a training venture as the full Ironman ${ }^{\circledR}$ distance.

Having personally coached hundreds of athletes successfully at this distance, from beginner to world champion, I can tell you that Henry Ash and Marlies Penker do a fantastic job of skillfully directing you through the intricate steps of preparing for this endurance challenge. Starting your event well prepared physically and mentally will build your confidence and put you at ease, allowing you to enjoy a day that will forever be a memorable milestone in life. Ash and Penker present their information in an easy-to-read, systematic manner.

Whether you are just starting out there or looking to up your game, you will find this guide to be an essential resource in your training library. Get ready to get in the shape of your life!

## Lance Watson

> Founder, LifeSport Coaching
> Triathlon Olympic Gold Medal Coach
> Ironman® ${ }^{\circledR}$ Champion Coach

## TRIATHLON: HALF-DISTANCE TRAINING



## 1 INTRODUCTION

### 1.1 HALF-DISTANCE TRIATHLON ONE STEP AT A TIME

## "THE ROAD TO IRONMAN FAME IS 70.3 MILES LONG"

This phrase sums up the special challenge of the half-distance triathlon. And it is just one more leap from the Ironman ${ }^{\circledR} 70.3^{\circledR}$ to its big brother, the Ironman ${ }^{\circledR} 140.6^{\circledR}$, which is the ultimate endurance-sporting accolade.

Ironman ${ }^{\circledR}$ ist a high-quality, recognizable name for a challenging event that, each year, attracts more people who want to conquer it to become known as hardcore athletes.

Ironman ${ }^{\circledR} 70.3^{\circledR}$ does not only mean mastering a long triathlon consisting of a 1.2 mile swim, a 56 mile bike-ride and a 13.1 mile run; Ironman® embodies the "calculated adventure" par excellence, the struggle against water, wind, the course, and yourself. It means uncertainty as to how those 70.3 miles will affect our bodies, the countless highs and lows, the doubt and hope, the moments of strength and weakness that every athlete goes through on their way from start to finish.

Ironman ${ }^{\circledR}$ also embodies motivation, willpower, perseverance, energy, strength, flexibility, the need to be active and the dream of finishing, all qualities that are required in everyday life. The opportunities for transferring these qualities to the Ironman ${ }^{\circledR}$ are therefore unlimited.

So why race 70.3 miles all in one go?
Do you too dream of completing an Ironman ${ }^{\circledR} 70.3^{\circledR}$ or another half-distance triathlon?
Then all you need is good health and passion...
...for the multi-faceted endurance sport, consisting of swimming, cycling and running.
In order to attain your Ironman® goal, it is not essential to:
> Be young or unattached
> Train 20 hours or more per week
$>$ Be a semi- or full-professional athlete
This is exemplified by the following people's success stories:
46-year-old Dan, who before turning 45 had never exercised regularly apart from a few bike rides.

Patricia, now 42, who took up triathlon because she wanted to get fit. She caught the Ironman® bug four years ago.

36 -year-old Doris was an enthusiastic spectator of the Ironman® ${ }^{\circledR}$ Austria who hung up her ice hockey skates in order to take up the triathlon.

40-year-old Oliver, whose principal motivations to train are the challenge, his enjoyment of sport and the testing of his performance limits, still manages to be competitive with an average of 8-9 training hours per week.

## TRIATHLON: HALF-DISTANCE TRAINING



### 1.2 THE KEYS TO SUCCESS

## "IT IS BETTER TO START SLOWLY THAN TO DROP OUT QUICKLY!"

By using realistic training suggestions, specific examples and other tips, we intend to give you the keys to succeeding in the half-distance triathlon. The 70.3-mile course is purely theoretical. In competition, many factors can cause the 1.2-mile swim to become a few hundred yards longer, and almost nobody finds the ideal line during the 56 -mile cycling component or the 13.1-mile running course.

Our daily swimming, cycling and running training should be equally flexible. Who knows that better than Henry after 25 years of triathlon training! This makes our half-distance training a little more accessible.

## INTRODUCTION

With this book, we - Henry and Marlies - would like to lead you on your personal halfdistance triathlon journey. The countless facts, tips, suggestions and hints are intended to ensure that you retain or enhance your enjoyment of endurance sports as well as master your journey to the half-distance triathlon as safely as possible. Unfortunately, we cannot completely save you from slight detours.

We hope that you too will experience the deep satisfaction of completing a halfdistance triathlon successfully and in good health. We therefore wish you much fun and enjoyment, for we are absolutely certain that success is sure to follow.


## TRIATHLON: HALF-DISTANCE TRAINING



## 2 THE APPEAL OF THE HALF-DISTANCE TRIATHLON

The fascination of the half-distance triathlon can be summed up in two sayings and with a few important facts:
If you want to do triathlon, then do the Olympic distance, but if you want to find a new life (and yourself), then do an Ironman ${ }^{\circledR}$.

You can buy a house, but not a home.
You can buy a bed, but not sleep.
You can buy a clock, but not time.
You can buy a great bike, but not an IRONMAN®!

## THE APPEAL OF THE HALF-DISTANCE TRIATHLON

## More facts that make the half-distance triathlon appealing:

$>$ The many hours of training
> Getting to know your own body
$>$ Discovering and raising your performance limits
> Struggling against problems and obstacles during preparation
$>$ The length of the course and the weather
$>$ The uncertainty of the race's outcome
$>$ The different nature of swimming, cycling and running
$>$ Struggling to overcome challenges in the water, on the bike and on the running course
$>$ The satisfaction of reaching the long-awaited and eagerly anticipated finish line
> Justified pride at having accomplished your goal
> The sublime feeling of having conquered the 70.3 mile course
> Increased self-confidence, physical well-being and physical capacity
$>$ The certainty that one has done something out of the ordinary
> Mastering the challenge you have set for yourself
$>$ The affirmation of your will power, endurance and perseverance
The fascination with the half-distance triathlon is closely linked to swimming, cycling, as well as running the course length. The Olympic discipline, on the other hand, is considered to be a standard triathlon competition that can easily be mastered with the correct training. However, it is precisely those extra miles on the bike and on foot that make the difference and give the Ironman ${ }^{\circledR}$ its mythical status. They account for the uncertainty and thrilling anticipation typically felt in endurance events (flow) as we head toward the finish. Can we can get our legs, mistreated during the cycling, to cover the 13.1 miles on foot? After the 60.3 miles, will our burning muscles be able to cover the remaining 10 miles? Will we avoid "hitting the wall" until after the finish, or it will be waiting for us at the next aid station? In a half-distance triathlon, we never know what will happen until we actually cross the finish line.

If you are already feeling bad after swimming, you have a problem.
It's normal to feel exhausted after the cycling.
But it's not normal if you don't feel dead after 70.3 miles!

## TRIATHLON: HALF-DISTANCE TRAINING

Most half-distance triathlon participants ask themselves just before or during the race, "Why am I doing this? Do I have to? Can't I live without the half distance?" Many curse themselves, the race, and everything around them and vow never to put themselves through this torture again.

However, after a short recovery phase at the finish, nearly all paticipants become repentant liars, and in typical triathlon fashion, bask in the positive memories and start to plan their next half-distance triathlon.

Here the common saying, "the journey is the reward," applies. Positive memories of the training for swimming, cycling and running are awakened.

The goals that we were really seeking were overcoming obstacles; the countless hours in the sun, rain, wind and snow; the positive, sociable and exciting hours spent swimming, cycling and running; these are the things that make an Ironman ${ }^{\circledR}$ out of a triathlete.

The rich experience of these hours of training give us the opportunity to let our minds wander, but also to socialize and enjoy the beauty and changing seasons of nature. All of this makes triathlon an event that provides a quality of life that we are not willing to give up.

## Follow us on our short, imaginary triathlon journey

You are surrounded by other athletes on the bank of a lake, the atmosphere is tense yet calm, and there are only a few minutes to go before the start. Thoughts are swirling around your head: "Have I trained hard enough?" "Will I make it to the finish?" "How will the swimming, cycling and running go?" But then your train of thought is interrupted by the starting signal and you and your fellow athletes rush into the water. You dive into the water, then come back up to the surface and try to get some air, which is quite hard in the first few yards. You fight for space, get jostled a little but gradually find your swimming rhythm. After a few minutes, you feel better and can maintain your speed. Now and again you try to catch or overtake the leader, and soon notice that the first discipline of the half-distance is nearly over. You can already hear the cheers of the spectators in the transition zone; you climb quite happily out of the water and are relieved to have the swimming section under your belt.

## THE APPEAL OF THE HALF-DISTANCE TRIATHLON

You run into the transition zone, fetch your bike bag and get changed in the transition tent. Full of motivation, you grab your bike, push it out of the transition zone and the race now continues on land. As you start, your legs feel a little tired, but gradually you get into your stride and take over other triathletes here and there. You don't forget to eat and drink and feel that today your body is capable of great things. You occasionally have phases of fatigue and wonder if you will be able to cover the whole 56 miles. But it's ok, these moments soon pass and your legs soon feel fresh again. Now the second discipline is ending, and in the last few miles, you are relaxed as you approach the next transition zone.

In this transition zone, you put on your running clothes and then the final discipline is soon under way. Now it is hard, because over the first few miles your legs feel "rubbery" and heavy; you have the feeling that you can't run properly. But your muscles adjust because you have already practiced the transition from bike to running in training a few times. Now in the race, your legs remember how to run again. The spectators cheer you on here and there and carry you toward the finish. You don't give up when moments of fatigue occur. If you really can't run any more, you walk for a while, and are usually able to start running again after a while.

You get nearer and nearer to the finish, the crowd drives you on, you know that you can do it. Only a few more yards, then you cross the finish line. The feeling is indescribable, you want to "hug the world," all the effort and minor ailments are forgotten. You've done it. A wave of happiness flows over you; you smile from ear to ear and are absolutely elated to have accomplished your goal.

Would you like to have this feeling too?
In this book, we provide tips and tricks that will enable you to become a happy and successful half-distance triathlon finisher.

