

---

# Contents

<b>1 The Definition and Prevalence of Obesity and Metabolic Syndrome.....</b>	<b>1</b>
Atilla Engin	
<b>2 Circadian Rhythms in Diet-Induced Obesity .....</b>	<b>19</b>
Atilla Engin	
<b>3 Eat and Death: Chronic Over-Eating .....</b>	<b>53</b>
Atilla Engin	
<b>4 Obesity, Persistent Organic Pollutants and Related Health Problems .....</b>	<b>81</b>
Loukia Vassilopoulou, Christos Psycharakis, Demetrios Petrakis, John Tsiaoussis, and Aristides M. Tsatsakis	
<b>5 Human Protein Kinases and Obesity .....</b>	<b>111</b>
Atilla Engin	
<b>6 Fat Cell and Fatty Acid Turnover in Obesity .....</b>	<b>135</b>
Atilla Engin	
<b>7 Adipose Tissue Function and Expandability as Determinants of Lipotoxicity and the Metabolic Syndrome .....</b>	<b>161</b>
Stefania Carobbio, Vanessa Pellegrinelli, and Antonio Vidal-Puig	
<b>8 What Is Lipotoxicity? .....</b>	<b>197</b>
Ayse Basak Engin	
<b>9 The Pathogenesis of Obesity-Associated Adipose Tissue Inflammation .....</b>	<b>221</b>
Atilla Engin	
<b>10 Microbiota and Lipotoxicity .....</b>	<b>247</b>
Evren Doruk Engin	
<b>11 Endoplasmic Reticulum Stress and Obesity .....</b>	<b>261</b>
Erkan Yilmaz	
<b>12 Insulin Resistance, Obesity and Lipotoxicity .....</b>	<b>277</b>
Dilek Yazıcı and Havva Sezer	

<b>13</b>	<b>Adipose Tissue Hypoxia in Obesity and Its Impact on Preadipocytes and Macrophages: Hypoxia Hypothesis .....</b>	<b>305</b>
	Atilla Engin	
<b>14</b>	<b>Adipocyte-Macrophage Cross-Talk in Obesity .....</b>	<b>327</b>
	Ayşe Basak Engin	
<b>15</b>	<b>Endothelial Dysfunction in Obesity.....</b>	<b>345</b>
	Atilla Engin	
<b>16</b>	<b>Diet-Induced Obesity and the Mechanism of Leptin Resistance.....</b>	<b>381</b>
	Atilla Engin	
<b>17</b>	<b>Influence of Antioxidants on Leptin Metabolism and its Role in the Pathogenesis of Obesity .....</b>	<b>399</b>
	Harald Mangge, Christian Ciardi, Kathrin Becker, Barbara Strasser, Dietmar Fuchs, and Johanna M. Gostner	
<b>18</b>	<b>Adiponectin-Resistance in Obesity.....</b>	<b>415</b>
	Atilla Engin	
<b>19</b>	<b>Non-Alcoholic Fatty Liver Disease .....</b>	<b>443</b>
	Atilla Engin	
<b>20</b>	<b>Lipotoxicity-Related Hematological Disorders in Obesity.....</b>	<b>469</b>
	Ibrahim Celalettin Haznedaroglu and Umit Yavuz Malkan	
<b>21</b>	<b>MicroRNA and Adipogenesis .....</b>	<b>489</b>
	Ayşe Basak Engin	
<b>22</b>	<b>The Interactions Between Kynurenine, Folate, Methionine and Pteridine Pathways in Obesity .....</b>	<b>511</b>
	Ayşe Basak Engin and Atilla Engin	
<b>23</b>	<b>Eligibility and Success Criteria for Bariatric/Metabolic Surgery.....</b>	<b>529</b>
	Manuel F. Landecho, Víctor Valentí, Rafael Moncada, and Gema Frühbeck	
<b>24</b>	<b>Does Bariatric Surgery Improve Obesity Associated Comorbid Conditions .....</b>	<b>545</b>
	Atilla Engin	
<b>25</b>	<b>Obesity-associated Breast Cancer: Analysis of risk factors .....</b>	<b>571</b>
	Atilla Engin	
<b>26</b>	<b>Lipotoxicity in Obesity: Benefit of Olive Oil .....</b>	<b>607</b>
	Saad Elias, Sbeit Wisam, Arraf Luai, Barhoum Massad, and Assy Nimer	
	<b>Index.....</b>	<b>619</b>

Obesity and Lipotoxicity

Engin, A.B.; Engin, A. (Eds.)

2017, VIII, 624 p. 47 illus., 35 illus. in color., Hardcover

ISBN: 978-3-319-48380-1