

## Orlistat-Associated Adverse Effects and Drug Interactions

### A Critical Review

Theodosios D. Filippatos,<sup>1</sup> Christos S. Derdemezis,<sup>1</sup> Irene F. Gazi,<sup>1</sup> Eleni S. Nakou,<sup>1</sup>  
Dimitri P. Mikhailidis<sup>2</sup> and Moses S. Elisaf<sup>1</sup>

<sup>1</sup> Department of Internal Medicine, Medical School, University of Ioannina, Ioannina, Greece

<sup>2</sup> Department of Clinical Biochemistry (Vascular Disease Prevention Clinics), Royal Free  
Hospital, London, UK

莊禮維

康荃優生保健藥局

獲得美國FDA 與 台灣衛生署核准 非處方輔助減重藥品



**Table I.** Reported orlistat-associated adverse effects

Body system	Adverse effects
Gastrointestinal system	Fatty/oily stool, faecal urgency, diarrhoea, flatulence, abdominal pain, faecal spotting, anal fissure, cholelithiasis, pancreatitis, acute cholestatic hepatitis, subacute liver failure, massive hepatocellular necrosis, severe hepatic injury
Blood pressure	Hypertension (17 cases)
Nervous system	Depression, malaise, lassitude, headache, forgetfulness
Renal function	Enteric hyperoxaluria, acute kidney injury secondary to acute oxalate nephropathy, rapidly progressive renal failure, constipation, polyuria, polydipsia, lower-leg oedema
Endocrine system	Diabetic ketoacidosis
Skin	Cutaneous vasculitis, lichenoid eruption
Genitalia	Vaginitis, vulvitis

**Table II.** Drug-drug interactions with orlistat

**Drugs reported to interfere with orlistat**

Fat-soluble vitamins, warfarin, amiodarone, ciclosporin, lamotrigine, valproic acid, vigabatrin, gabapentin, thyroxine

**Drugs not (reported as) interfering with orlistat**

Phenytoin, fluoxetine, amitriptyline, metformin, phentermine, sibutramine, digoxin, losartan, atenolol, furosemide, captopril, nifedipine, pravastatin, simvastatin, atorvastatin, haloperidol, clozapine, clomipramine, desipramine, carbamazepine



## Drug interactions with Orlistat

- vitamin A, D, E and betacarotene ↓
- vitamin K absorption ↓ and lowering of warfarin dose
- Amiodarone is an lipophilic drug
- Lamotrigine, valproic acid, vogabatin, gabapentin are lipophilic drugs



- Thyroxin binded with orlistat in the GI

CASE REPORT

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**Acute Pancreatitis Following Orlistat Therapy: Report of Two Cases**

Faheem Aşem Ahmad, Sajid Mahmud

Department of General Surgery, Hairmyres Hospital, East Kilbride, United Kingdom



## Case report #1

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- 73 years old lady
- Upper abdominal pain about 12 hrs
- Omeprazole, fluoxetine
- Orlistat for 10 days
- BP 178/86 mmHg, HR 68 bpm

**Table 1.** Laboratory data.

	Case#1	Case#2	Reference range
Amylase (IU/L)	1,070	371	0-100
Urea (mmol/L)	5.1	3.8	2.5-7.5
Creatinine ( $\mu$ mol/L)	51	60	60-100
Adjusted calcium (mmol/L)	2.04	2.12	2.1-2.6
Bilirubin ( $\mu$ mol/L)	10	12	0-22
Albumin (g/L)	39	45	36-52
AST (IU/L)	94	78	0-40
ALT (IU/L)	101	58	0-50
Alkaline phosphatases (IU/L)	113	58	25-110
C reactive protein (mg/L)	<6	10	0-6
Glucose (mmol/L)	7.5	5.9	3.5-5.5
Arterial H <sup>+</sup> (nmol/L)	42	32	36-43
White cell count ( $\times 10^9$ /L)	15.8	11.9	4-11

- Modified Glasgow score 2
- IV fluids and analgesia
- 4 days admission

## Case report #2

- 45 years old lady
- 6 hours central abdominal pain
- Venlafaxine (Effexor), levomepromazine (Nozinan)
- Alcohol induced pancreatitis 1 year ago
- Orlistat for 2 days
- BP 148/63 mmHg, HR 80 bpm

**Table 1.** Laboratory data.

	Case#1	Case#2	Reference range
Amylase (IU/L)	1,070	371	0-100
Urea (mmol/L)	5.1	3.8	2.5-7.5
Creatinine ( $\mu$ mol/L)	51	60	60-100
Adjusted calcium (mmol/L)	2.04	2.12	2.1-2.6
Bilirubin ( $\mu$ mol/L)	10	12	0-22
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Glucose (mmol/L)	7.5	5.9	3.5-5.5
Arterial H <sup>+</sup> (nmol/L)	42	32	36-43
White cell count ( $\times 10^9$ /L)	15.8	11.9	4-11



- IV fluids and analgesia
- 3 days admission



## Conclusion

- Pharmacists should remind patients to the drug interaction with orlistat
- If patients had abdominal pain after commencing orlistat, it may be pancreatitis.
- Pharmacists must note cautious use of orlistat in patients at risk of pancreatic injury

