

The Ashton Manual

**BENZODIAZEPINES: HOW THEY WORK
AND HOW TO WITHDRAW**

UNIVERSITY OF
NEWCASTLE



**PROTOCOL FOR THE TREATMENT OF
BENZODIAZEPINE WITHDRAWAL**

**Medical research information from a
benzodiazepine withdrawal clinic**

Professor C Heather Ashton, DM, FRCP
Emeritus Professor of Psychopharmacology
School of Neurosciences, Division of Psychiatry,
The Royal Victoria Infirmary, Queen Victoria Road,
Newcastle upon Tyne NE1 4LP, England, UK.

CONTENTS PAGE

| | |
|---|-----------|
| IMPORTANT MESSAGE FROM PROF. ASHTON ----- | 3 |
| CONTENT PAGE ----- | 4 |
| INTRODUCTION - FOREWORD 2001 ----- | 7 |
| FOREWORD TO REVISED EDITION, AUGUST 2002 ----- | 8 |
| ABOUT PROFESSOR C. HEATHER ASHTON, DM, FRCP ----- | 8 |
| SUMMARY OF CONTENTS ----- | 9 |
| CHAPTER I. THE BENZODIAZEPINES: WHAT THEY DO IN THE BODY --- | 10 |
| Background ----- | 10 |
| About this chapter ----- | 10 |
| The benzodiazepines ----- | 11 |
| Potency ----- | 11 |
| Speed of elimination ----- | 11 |
| Duration of effects ----- | 12 |
| Therapeutic actions of benzodiazepines ----- | 13 |
| Mechanisms of action ----- | 13 |
| Adverse effects of benzodiazepines ----- | 15 |
| Oversedation ----- | 15 |
| Drug interactions ----- | 16 |
| Memory impairment ----- | 16 |
| Paradoxical stimulant effects ----- | 16 |
| Depression, emotional blunting ----- | 17 |
| Adverse effects in the elderly ----- | 17 |
| Adverse effects in pregnancy ----- | 18 |
| Tolerance ----- | 18 |
| Dependence ----- | 20 |
| Therapeutic dose dependence ----- | 20 |
| Prescribed high dose dependence ----- | 21 |
| Recreational benzodiazepine abuse ----- | 21 |
| Socioeconomic costs of long-term benzodiazepine use ----- | 21 |
| Further reading ----- | 22 |
| CHAPTER II. HOW TO WITHDRAW FROM BENZODIAZEPINES AFTER LONG TERM USE ----- | 23 |
| Background ----- | 23 |
| Why should you come off benzodiazepines? ----- | 23 |
| Before starting benzodiazepine withdrawal ----- | 25 |
| Consult your doctor and pharmacist ----- | 25 |

| | |
|--|-----------|
| Make sure you have adequate psychological support ----- | 25 |
| Get into the right frame of mind ----- | 26 |
| Be confident ----- | 26 |
| Be patient ----- | 26 |
| Choose your own way ----- | 26 |
| The withdrawal ----- | 27 |
| Dosage tapering ----- | 27 |
| Switching to a long-acting benzodiazepine ----- | 28 |
| Designing and following the withdrawal schedule ----- | 30 |
| Withdrawal in older people ----- | 32 |
| Withdrawal of antidepressants ----- | 33 |
| Further reading ----- | 33 |
| Slow withdrawal schedules ----- | 34 |
| 1. Withdrawal from high dose (6mg) alprazolam (Xanax) daily with diazepam (Valium) substitution ----- | 35 |
| 2. Simple withdrawal from diazepam (Valium) 40mg daily ----- | 36 |
| 3. Withdrawal from lorazepam (Ativan) 6mg daily with diazepam (Valium) substitution ----- | 37 |
| 4. Withdrawal from nitrazepam (Mogadon) 10mg at night with diazepam (Valium) substitution ----- | 39 |
| 5. Withdrawal from clonazepam (Klonopin) 1.5mg daily with substitution of diazepam (Valium) ----- | 40 |
| 6. Withdrawal from clonazepam (Klonopin) 3mg daily with substitution of diazepam (Valium) ----- | 41 |
| 7. Withdrawal from alprazolam (Xanax) 4mg daily with diazepam (Valium) substitution ----- | 42 |
| 8. Withdrawal from lorazepam (Ativan) 3mg daily with diazepam (Valium) substitution ----- | 43 |
| 9. Withdrawal from temazepam (Restoril) 30mg nightly with diazepam (Valium) substitution ----- | 44 |
| 10. Withdrawal from oxazepam (Serax) 20mg three times daily (60mg) with diazepam (Valium) substitution ----- | 45 |
| 11. Withdrawal from chlordiazepoxide (Librium) 25mg three times daily (75mg) ----- | 46 |
| 12. Withdrawal from zopiclone (Zimovane) 15mg with diazepam (Valium) substitution ----- | 47 |
| 13. Antidepressant Withdrawal Table ----- | 47 |
| CHAPTER III. BENZODIAZEPINE WITHDRAWAL SYMPTOMS, ACUTE AND PROTRACTED ----- | 49 |
| Mechanisms of withdrawal reactions ----- | 49 |
| Acute withdrawal symptoms ----- | 50 |
| Individual symptoms, their causes and how to deal with them ----- | 51 |
| Insomnia, nightmares, sleep disturbance ----- | 51 |
| Intrusive memories ----- | 52 |
| Panic attacks ----- | 53 |
| Generalised anxiety, panics and phobias ----- | 54 |
| Psychological techniques ----- | 54 |
| Complementary medicine techniques ----- | 54 |
| Exercise and other techniques ----- | 54 |
| Sensory hypersensitivity ----- | 55 |
| Depersonalisation, derealisation ----- | 56 |
| Hallucinations, illusions, perceptual distortions ----- | 56 |
| Depression, aggression, obsessions ----- | 57 |
| Muscle symptoms ----- | 58 |
| Bodily sensations ----- | 58 |
| Heart and lungs ----- | 59 |
| Problems with balance ----- | 59 |
| Digestive problems ----- | 59 |
| Immune system ----- | 60 |
| Endocrine problems ----- | 61 |
| Fits, convulsions ----- | 61 |

| | |
|--|-----------|
| Extra medication during benzodiazepine withdrawal ----- | 61 |
| Antidepressants ----- | 62 |
| Beta-blockers ----- | 64 |
| Hypnotics and sedatives ----- | 64 |
| Other drugs ----- | 64 |
| Benzodiazepine use during and after withdrawal ----- | 65 |
| Diet, fluids and exercise ----- | 66 |
| Smoking ----- | 67 |
| Course of withdrawal ----- | 67 |
| Protracted withdrawal symptoms ----- | 68 |
| Anxiety ----- | 69 |
| Depression ----- | 70 |
| Insomnia ----- | 70 |
| Sensory and motor disturbances ----- | 70 |
| Possible mechanisms of persisting sensory and motor symptoms ----- | 71 |
| Poor memory and cognition ----- | 72 |
| Do benzodiazepines cause structural brain damage? ----- | 72 |
| Gastrointestinal symptoms ----- | 72 |
| Coping with protracted symptoms ----- | 73 |
| How long do benzodiazepines stay in the body after withdrawal? ----- | 74 |
| Epilogue ----- | 75 |
| Education ----- | 75 |
| Research ----- | 75 |
| Treatment methods ----- | 75 |
| Provision of facilities ----- | 75 |
| Further reading ----- | 76 |